TNPCB & YOU

A READY RECKONER FOR ENTERPRENEURS

POLLUTION PREVENTION PAYS

Dr. D. Karthikeyan, I.A.S.,
Chairman

Tamilnadu
Pollution Control Board

POLLUTION PREVENTION PAYS

FORWARD

Envirnoment is an ever emerging field. Over the years many Acts and Rules have been notified and amendments have been issued by the Government in order to protect the Environment. Recently the Central Pollution Control Board has notified the categorization of industries which needs to be adopted by all the State Pollution Control Boards. All these necessitates a fresh compilation by way of ready reckoner. The officers of TNPCB have taken efforts in compilation of salient features of various Environmental Acts and the Rules for the benefit of new entrepreneurs. This is the third and updated edition brought out after 12 years. This book will help all the entrepreneurs in knowing the provisions of various Acts & Rules and the various laws.

I believe this updated compilation will be very useful and convenient to all the entrepreneurs and environmentalists. Suggestions for improvement are always welcome.

5/6/13

Place: Chennai
Date: 5.6.2013

CHAIRMAN

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Tamilnadu Pollution Control Board (TNPCB) was constituted by the Government of Tamilnadu on 27th February, 1982 in pursuance of the Water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974). 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.

1.2 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:

(i) To plan a comprehensive programme for the prevention, control and abatement of water and air pollution.

(ii) To advise the State Government on any matter concerning the prevention, control or abatement of water and air pollution.

(iii) To collect and disseminate information relating to water and air pollution and the prevention, control or abatement thereof.

(iv) To inspect sewage and trade effluent treatment plants for their effectiveness and review plans, specifications for corrective measures.

(v) 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.

(vi) 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.

(vii) 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.

(viii) To evolve best economically viable treatment technology for sewage and trade effluents.

(ix) To collect samples of sewage and trade effluents and emissions of air pollutants and to analyze the same for specific parameters.

(x) To collaborate with Central Pollution Control Board in organizing the training of persons engaged or to be engaged in programme relating to prevention, control or abatement of water and air pollution and to organise mass education programme relating thereto.

(xi) To perform such other functions as may be prescribed by the State Government or Central Pollution Control Board.

1.3 CONSTITUTION OF TNPCB

The TNPCB is constituted by the State Government. It comprises a full time Chairman, 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.

1.4 ORGANISATIONAL SET UP

The TNPCB has established its organization structure with a three-tier system consisting of head-office at Chennai and 6 zonal offices headed by Joint Chief Environmental Engineers (JCEE), 32 district offices headed by District Environmental Engineers (DEE) and 2 district offices headed by Assistant Environmental Engineers (AEE). To assist the Board in monitoring the industries, 5 Advanced Environmental Laboratories, 10 District Environmental Laboratories are functioning. These laboratories carry out analysis on samples of sewage, trade effluents, emissions and hazardous wastes.

1.5 ENVIRONMENTAL LEGISLATIONS

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

1. The Water (Prevention and Control of Pollution) Act, 1974 as amended in 1978 & 1988.
2. The Tamilnadu Water (Prevention and Control of Pollution) Rules, 1983.
3. The Water (Prevention and Control of Pollution) Cess Act, 1977, as amended in 1991and 2003.
4. The Water (Prevention and Control of Pollution) Cess Rules, 1978 as amended in 1992.
5. The Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987.
6. The Tamilnadu Air (Prevention and Control of Pollution) Rules, 1983.
7. The Environment (Protection) Act, 1986.
8. The Environment (Protection) Rules, 1986 as amended.

9. The Hazardous Wastes (Management, Handling and Transboundry Movement) Rules, 2008 as amended.
10. Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended in 1994 & 2000.
11. The Manufacture, Use, Import, Export and Storage of Hazardous Micro organisms / genetically engineered organisms or cells Rules, 1989.
12. The Public Liability Insurance Act, 1991 as amended in 1992.
13. The Public Liability Insurance Rules, 1991.
14. Coastal Regulation Zone Notification, 1991 as amended in 1994, 1997 & 2001.
15. The Environment Impact Assessment Notification, 2006 as amended in 2009,
16. The National Environment Tribunal Act, 1995.
17. The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996
18. The National Environment Appellate Authority Act, 1997.
19. The National Environment Appellate Authority (Appeal) Rules, 1997.
20. The Bio-Medical Waste (Management and Handling) Rules, 1998 as amended in 2000, 2003.
21. Utilization of Fly Ash from Coal or Lignite based Thermal Power Plants Notification, 1999 as amended in 2003.
22. The Municipal Solid Wastes (Management and Handling) Rules, 2000.
23. Noise Pollution (Regulation and Control) Rules, 2000.
24. Ozone Depleting Substances (Regulation and Control) Rules, 2000.
25. The Batteries (Management and Handling) Rules, 2001 as amended.
26. The Plastics Waste (Management & Handling) Rules, 2011.
27. E.Waste (Management & Handling) Rules, 2011.

1.6 MONITORING OF INDUSTRIES

With the increasing pace of industrialization in Tamilnadu, 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 the 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 ultra Red, Red, Orange, and Green according to their pollution potential. Also the industries have been classified as Large, Medium and Small scale based on the grossed fixed assets of the industry. Depending upon the category and size, industries are monitored periodically.

1.7 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 of entire Tamilnadu 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 before commissioning the industrial unit after the compliances of conditions of 'Consent to Establish' issued.

1.8 ADDRESS OF THE OFFICES AND LABORATORIES OF TAMIL NADU POLLUTION CONTROL BOARD

Head Office: 76, Mount Salai, Guindy, Chennai – 600 032.
Phone: 044 – 2235 3134 to 2235 3142
Fax: 044 - 2235 3068
E.mail: tnpcb@md3.vsnl.net.in
Web site: www.tnpcb.gov.in

JCEE (Monitoring):
Office Headed by Joint Chief Environmental Engineer

S.No.	Zonal Office	Postal Address	Jurisdiction (o/o DEE)
1	Chennai	Tamil Nadu Pollution Control Board, 77-A,South Avenue Road, Ambattur Industrial Estate, Ambattur Taluk, Chennai - 600 058. Tel: 044-26880522	Chennai, Ambattur Maraimalai Nagar, Sriperumbudur, Tiruvallur
2	Coimbatore	Tamil Nadu Pollution Control Board, J. Kapila Towers, 266, Mettupalayam Road, Coimbatore - 641 043. Tel: 0422-2445007	Coimbatore (North), Coimbatore (South), Erode, Namakkal, Perundurai, Salem, Tiruppur (North), Tiruppur (South), Nilgiris,Flying squad Tiruppur,Flying squad Erode
3	Maduari	Tamil Nadu Pollution Control Board, SIDCO Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai - 625 008. Tel: 0452-2489503	Madurai, Karur, Dindigul, Sivagangai, Theni
4	Tirunelveli		Tirunelveli, Thoothukudi, Virudhunagar, Nagercoil

5	Trichy	Tamil Nadu Pollution Control Board, No.25, Developed Plots, Thuvakudy, Trichy - 620 015. Tel: 0431-2501558 jceetry@gmail.com	Trichy, Pudukottai, Thanjavur, Nagapattinam, Cuddalore,Ariyalur
6	Vellore	Tamil Nadu Pollution Control Board Auxilium College Road , (Opposite to Auxilium College) Gandhi Nagar, Vellore -632 006 Tel: 0416-2242700	Vellore, Villupuram, Hosur, Tiruvannamalai, Vaniyambadi

District Office:
Office Headed by District Environmental Engineer

S. No.	District Office at	Postal Address	Jurisdiction
1	Ambattur Thiruvallur Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, 77-A,South Avenue Road, Ambattur Industrial Estate, Ambattur Taluk, Chennai - 600 058, Thiruvallur District Phone: 044 26246522 E Mail: deeambattur@gmail.com	Ambattur Taluk Ponneri Taluk Madavaram Taluk
2	Ariyalur	District Environmental Engineer Tamil Nadu Pollution Control Board, No.25, Developed Plots, Thuvakudy, Trichy - 620 015 Phone : 0431 - 2501588 Email ID : deetnpcbtrichy@dataone.in	Ariyalur District, Perambalur District
3	Chennai	District Environmental Engineer, Tamil Nadu Pollution Control Board 950/1, Poonamallee High Road, Arumbakkam, Chennai - 600 106. Phone 044 26268603 Email ID: tnpcbchennai@yahoo.in	Chennai District
4	Coimbatore (North) Coimbatore Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, J. Kapila Towers, 266, Mettupalayam Road, Coimbatore - 641 043. Phone : 0422 - 2431139 Email ID : tnpcbcbn@gmail.com	Coimbatore North Taluk Mettupalayam Taluk Annur Taluk
5	Coimbatore (South) Coimbatore Dt.	District Environmental Engineer, Tamil Nadu Pollution Control Board, 42-D, S.N.R. College Road, Peelamedu, Coimbatore – 641004 Phone : 0422 - 2566608 Email ID: tnpcbcbs@gmail.com	Coimbatore South Taluk Sulur Taluk Pollachi Taluk Valparai Taluk

6	Cuddalore	District Environmental Engineer, Tamil Nadu Pollution Control Board No 21-A, Siva Complex, Imperial Road, Thiruppapuliyur Cuddalore - 607 002. Phone : 04142 - 221867 Email ID : deetnpcbcud@gmail.com	Cuddalore District
7	Dindigul	District Environmental Engineer, Tamil Nadu Pollution Control Board, Plot No:44, Jayaraj Bhavan 9 th Cross Street, Thiruvallur Salai Dindigul District -624 003 Phone : 0451 2423166 Email ID : tnpcbdgl@dataone.in	Dindigul District
8	Erode	District Environmental Engineer, Tamil Nadu Pollution Control Board D V Complex, I Floor 155A, Nehru Street, Near R.R. Lodge, Erode- 638001 Phone 0424 2251592 Email ID : deetnpcberd@gmail.com	Erode Taluk
9	Hosur Krishnagiri Dt	District Environmental Engineer Tamil Nadu Pollution Control Board, Plot No:140A, SIPCOT Industrial Complex, Hosur -635 126 Phone : 04344 - 278922 Email ID : deehosur@in.com	Krishnagiri District Dharmapuri District
10	Kancheepuram (Maraimalai Nagar) Kancheepuram Dt	District Environmental Engineer Tamil Nadu Pollution Control Board, Maraimalai Adigalar Street, Next to Municipal Office, Maraimalai Nagar, Chennai-603 209, Kancheepuram District. Phone : 044 - 27454422 Email ID : tnpcb_mmn@yahoo.com	Tambaram Taluk Alnadur Taluk Sholinganallur Taluk Chengalpattu Taluk Cheyar Taluk Thirukalukundram Taluk
11	Karur	District Environmental Engineer Tamil Nadu Pollution Control Board No 26,Ramakrishnapuram West, Karur - 639 001. Phone : 04324 - 230522 Email: tnpcbkarur@gmaill.com	Karur District
12	Madurai	District Environmental Engineer Tamil Nadu Pollution Control Board, SIDCO Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai - 625 008. Phone : 0452 - 2489503 Email ID : tnpcbmadurai@bsnl.in	Madurai District

13	Nagapattinam	District Environmental Engineer, Tamil Nadu Pollution Control Board, No.14, Perumal sannathi street Nagapattinam – 611001. Phone : 04365 - 221832 Email ID :aeetnpcbnagai@yahoo.co.in	Nagapattinum District Thiruvarur District
14	Nagercoil	District Environmental Engineer, Tamil Nadu Pollution Control Board, No.22/15, Parvatha varthinee Street (Near Collectorate Signal) Nagercoil - 629 001. Phone : 04652-229442 Email ID :tnpcbnagercoil@yahoo.co.in	Kanyakumari District
15	Namakkal	District Environmental Engineer, Tamil Nadu Pollution Control Board, 597, Salem Main Road, P.S.K. Towers, Namakkal – 637001. Phone : 04286 - 276725 Email ID :tnpcbnamakkal@gmail.com	Namakkal District
16	Perundurai Erode Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, First Floor,VRV Complex, 21, Bhavani Road, Perundurai- 638052 Phone : 04294 – 225590 Email ID: deetnpcbpnd@gmail.com	Perundurai Taluk Gobichettipalayam Taluk Bhavani Taluk Sathyamangalam Taluk Anthiyur Taluk
17	Pudukkottai	District Environmental Engineer, Tamil Nadu Pollution Control Board, T.S.No.6107/1 Kalyanaramapuram First Floor, Thirukokarnam, Pudukkotatai – 622 002. Phone : 04322 - 220888 Email ID: deetnpcbpdk@gmail.com	Pudukkottai District
18	Salem	District Environmental Engineer, Tamil Nadu Pollution Control Board , Siva Tower , Post Box No. 457, No 1/276, Meyyanur Main Road Salem - 636 004. Phone : 0427 - 2448526 Email ID : deetnpcbslm@gmail.com	Salem District
19	Sivagangai	District Environmental Engineer, Tamil Nadu Pollution Control Board, No.5, Perumal Kovil Street, Geetha Mahal, First Floor, Sivagangai - 630561. Email ID : tnpcbsvg@gmail.com	Sivagangai District Ramanathapuram District

20	Sriperumpudur Kancheepuram Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, 539/3, Bazar Street, Balaji Complex, Padappai Sriperumpudur -601301 Phone : 044 – 27174524 Email ID: tnpcb_deespr@yahoo.in	Sriperumbudur Taluk Kancheepuram Taluk Maduranthagam Taluk Utthiramerur Taluk
21	Thanjavur	District Environmental Engineer, Tamil Nadu Pollution Control Board, Door No:3, 4 th Gross Street Sri Ram Nagar, Reddipalayam Road , Thanjavur - 613 004. Phone : 04362 -240558 Email ID : aeetnpcbtanjore@yahoo.co.in	Thanjavur District
22	Thiruchirapalli	District Environmental Engineer Tamil Nadu Pollution Control Board, No.25, Developed Plots, Thuvakudy, Trichy - 620 015 Phone : 0431 - 2501588 Email ID : deetnpcbtrichy@dataone.in	Thiruchirapalli District Permabalur District Ariyalur District
23	Thiruvallur Thiruvallur Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, 43/397A, Annai Indira Gandhi Road, Rajajipuram, Phase-II, Tiruvallur 602001 Phone 044 27664425 Email ID : tnpcb.tlr@gmail.com	Tiruvallur Taluk Tirutthani Taluk Pallipattu Taluk Gummudipoondi Taluk
24	Thiruvannamalai	District Environmental Engineer Tamil Nadu Pollution Control Board, 541/B, Ashok Nagar, Venkikal, Thiruvannamalai- 6060 604. Email ID: tncpb.tvm@gmail.com	Thiruvanamalai District
25	Thoothukudi	District Environmental Engineer, Tamil Nadu Pollution Control Board, C7 & C9, SIPCOT Industrial Complex, Meelavittan, Thoothukudi – 628 003. Phone : 0461 -2341298 Email ID : deetnpcb@rediffmail.com	Thoothukudi District
26	Tirunelveli	District Environmental Engineer, Tamil Nadu Pollution Control Board, 30/2 SIDCO Industrial Estate, Pettai , Tirunelveli - 627 010. Phone : 0462 - 2342931 Email ID : deetirunelveli@yahoo.co.in	Tirunelveli District
27	Tiruppur (North) Tiruppur Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, Kumaran Complex, Kumaran Road, Tiruppur - 641 601. Phone : 0421 - 2207199 Email ID : deetnpcbtpr.north@gmail.com	Tiruppur District

28	Tiruppur South Tiruppur Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, Kumaran Complex, Kumaran Road, Tiruppur - 641 601. Phone : 0421 - 2207199 Email ID : deetnpcbtpr.s@gmail.com	Tiruppur District
29	Vaniyambadi Vellore Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, 21/2,BI,C.L Haji Abdul Subham Street, C.L.Road, Vaniyambadi - 635 751 Phone : 04174 - 224831 Email ID : tnpcb.vaniyambadi@gmail.com	Vaniyambadi Taluk Katpadi Part Gudiyatham Taluk Tirupattur Taluk Vellore Part
30	Vellore	District Environmental Engineer, Tamil Nadu Pollution Control Board, Auxilium College Road , (Opposite to Auxilium College) Gandhi Nagar, Vellore -632 006 Phone : 0416 - 2242700 Email ID : deetnpcbvlr@yahoo.co.in	Vellore Part Katpadi Part Arcot Taluk Walajah Taluk Arakonam Taluk
31	Villupuram	District Environmental Engineer, Tamil Nadu Pollution Control Board, 4/308, Ellis Chatram Road , Villupuram – 605 602. Phone : 04146 - 259955 Email ID : tnpcbvpm@yahoo.co.in	Villupuram District
32	Virudhunagar	District Environmental Engineer, Tamil Nadu Pollution Control Board, 6/26, Gangai street, Madurai Road, Virudhunagar - 626 001. Phone : 04562 - 242442 Email ID : dee_tnpcbvnr@yahoo.co.in	Virudhunagar District

Office Headed by Assistant Environmental Engineer

S. No.	District	Address	Jurisdiction
1	Theni	Assistant Environmental Engineer, Tamil Nadu Pollution Control Board, SAR Complex, Door No.15/4,12A/3, Back to National Theater, Theni - 625531. tnpcbtheni@gmail.com	Theni District
2	Uthagamandalam	Assistant Environmental Engineer, Tamil Nadu Pollution Control Board, No.7A, Convent Road, St. Mary's Hill, Post Box No. 52, Uthagamandalam – 643001. tnpcbooty@gmail.com	The Nilgris District

Flying Squad

S. No.	District	Address	Jurisdiction
1	Tiruppur	Environmental Engineer (Monitoring) Flying Squad, Tamil Nadu Pollution Control Board, 16, Rayapuram East Street, Tiruppur - 641 601. E.Mail : flyingsquadtpr@gmail.com	Tiruppur District Coimbatore part
2	Erode	Environmental Engineer (Monitoring) Flying Squad, Tamilnadu Pollution Control Board, New Door No. 12, Agilmedu 4th Street, Sait Colony, Erode – 638 001. E.Mail: eefserd@gamil.com	Erode Dt Karur District Namakkal District

Laboratories:
Advanced Environmental Laboratories

S. No.	District	Address	Jurisdiction
1	Chennai	TNPCB Annexe Building, 76, Mount Salai, Guindy, Chennai – 600032. Phone : 044 - 22301598	Chennai District Other important samples
2	Coimbatore	136-D, Swami Iyer New Street, Ganga Garden, Coimbatore – 641001. Phone : 0422 - 2340174	Coimbatore District Nilgiri District
3	Cuddalore	No. 65, 1st Floor, Sekar Nagar, Nellipuppam Main Road, Cuddalore – 607001. Phone : 04142 233332	Cuddalore District Villupuram District Nagapattinam District Tiruvarur District
4	Madurai	Survey No. 668 & 669, SIDCO Industrial Estate, Kappalur, Madurai – 625008. Phone : 0452 - 2484497	Madurai District Sivagangai District Ramanathapuram District Viruthunagar District
5	Salem	SIVA TOWER, 1/276, Meyyanur Main Road, P.B.No. 457, Salem - 636004.	Salem District Viruthunagar District

District Environmental Laboratories

S. No.	District	Address	Jurisdiction
1	Ambattur	77-A, South Avenue Road, Ambattur Industrial Estate, Chennai – 600058. Phone : 044 - 26350560	Tiruvallur District
2	Dindigul	Jayaraj Bhavan, 9th Cross Street, Thiruvalluvar Salai, Dindigul – 624003. Phone : 0451 2428591	Dindigul District Theni District
3	Hosur	Plot No. 149-A, 1st Floor, SIPCOT Industrial Complex, Near Dharga, Hosur – 635126. Phone : 04344 - 278885	Krishnagiri District Dharmapuri District
4	Manali	950/1, Poonamallee High Road, Arumbakkam Chennai - 600 106. Phone 044 26268603	Chennai District
5	Maraimalai Nagar	Maraimalai Adigalar Street Next to Municipal office Maraimalai Nagar Chennai - 603209	Tambaram Taluk Alandur Taluk Sholinganallur Taluk Chengalpattu Taluk Cheyyar Taluk Thirukalukundram Taluk
6	Thiruchirapalli	25, Developed Plot, Thuvakudi, Thiruchirapalli - 620015. Phone : 0424 2244876	Thiruchirapalli District Ariyallur District Perambur District Thanjavour District
7	Thoothukudi	C7 & C9, SIPCOT Industrial Complex, Meelavittan, Thoothukudi – 628 003. Phone : 0461 -2341298	Thoothukudi District
8	Tirunelveli	30/2, SIDCO Industrial Estate, Pettai, Thirunelveli – 627003. Phone : 0462 - 2342919	Tirunelveli District Kanyakumari District
9	Tiruppur	II nd Floor, Kumaran Commercial Complex, Kumaran Road, Thiruppur – 641601.	Tiruppur District Erode District
10	Vellore	Auxilium College Road, (Opposite to Auxilium College Road) Gandhi Nagar, Vellore - 632006. Phone : 0416 - 2247906	Vellore District Tiruvannamali District

CHAPTER 2

WATER (P&CP) ACT, 1974

2.1 THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974 AS AMENDED IN 1978 AND 1988

Salient Features

Section 17	Empowers the Board to lay down standards for sewage / trade effluent.
Section 20	Empowers the Board to obtain information and give direction to furnish to it information regarding construction, installation or operation of such establishment or of any disposal system and such other particulars as may be prescribed.
Section 21	Empowers the Board to collect samples of sewage/ trade effluent from any industry.
Section 24	Prohibits the pollution of a stream or well by disposal of polluting matter etc.
Section 25 & 26	Consent of the Board for the establishment / operation of any industry and for discharge of sewage / trade effluent into any stream or well or sewer or on land or into marine coastal areas to be obtained. (List of industries for which the Tamil Nadu Electricity Board has to give power supply only after the industries produce consent to establish order issued by the Tamil Nadu Pollution Control Board is given in GO MS No. 111 E&F Dept. Dated 21.9.2011).
Section 28	Provides for appeal against the orders of the Board under Section 25 or 26 or 27. The appeal has to be made to the Appellate Authority, within thirty days from the date of communication of the order.
Section 30	Empowers the Board to carry our certain works when the concerned industry has failed to carry out the directions of the Board and to recover the cost from that industry.
Section 31	Requires furnishing of information to the Board about the accidental discharge of poisonous, noxious or polluting matter.
Section 32	Empowers the Board to take action on the presence of noxious or polluting matter in any stream or well or sewer or land and issuing orders restraining or prohibiting the discharge of any such matter into any stream or well or sewer or on land or into marine coastal areas.
Section 33A	Empowers the Board to issue directions for closure of the industry or for stoppage of electricity, water supply or any other service.

Section 43	Contravention of Section 24 is punishable with imprisonment for a term not less than one year and six months but which may extend to six years and with fine.
Section 44	Contravention of Section 25 or Section 26 is punishable with imprisonment for a term not less than one year and six months but which may extend to six years and with fine.
Section 46	No Civil Court shall have jurisdiction to entertain any suit or proceeding in respect of any matter which an Appellate Authority constituted under the Water Act is empowered to determine.

2.2 THE TAMIL NADU WATER (P&CP) RULES, 1983

Salient Features

Rule 15	**Power and duties of the Chairman.-** The Chairman shall have overall control over the functions of the Board. Subject to general financial rules and service rules of the Government, shall have power in respect of the following matters, to the extant such power is not conferred on the Member-Secretary.
Rule 16	**Powers and duties of the Member-Secretary.-** Subject to the overall control of the Chairman, the Member-Secretary shall exercise the following powers,
Rule 20	**Appointment of consulting Engineers.-** For the purpose of assisting the Board in the performance of its functions, the Board may appoint any qualified person to be consulting Engineer for a period not exceeding four months, and assign him such duties as are necessary for the purpose.
Rule 25	**Form of notice.-** The notice of intention to analyze a sample under clause (a) of sub-section (3) of section 21 shall be in Form I
Rule 26 A	**Consent fee.–** Consent fee shall be paid at the following rates by the industries and the local bodies specified in the Table below:-
Rule 27	**Procedure for making inquiry into an application for consent .-** (1) On receipt of an application under section 25 or section 26, the Board may depute any of its officers accompanied by as many assistants as may be necessary, to visit the premises of the applicant. .. (2) Such officer shall, before visiting any premises of the applicant for the purpose of inspection under sub-rule (1) give notice to the applicant of his intention to do so in Form IV. The applicant shall provide to such officer all facilities that such officer may legitimately require for the purpose.

Rule 27 A	**Form and manner in which appeal may be preferred under section 28 and the procedure to be followed by the appellate authority .-** (1) Every appeal under section 28 against an order passed by the Board under section 25, section 26 or section 27 shall be made in Form IV -A.
Rule 28	**Furnishing of information under section 31(1).-** Every person incharge of any place where any industry or trade is being carried on shall, on happening of any accident, unforeseen act or event as contemplated in sub-section (1) of section 31, forthwith intimate the occurrence thereof to the Board, the Collector of the District, the Revenue Divisional Officer, the District Health Officer, the Executive Authority of the municipal or local body concerned and the nearest police station.
Rule 28-C	**Fees payable for the laboratory's report.** - Fees payable for laboratories report on the analysis of tests of samples of water or of sewage or trade effluent shall be as specified in the Annexure I and III to this rule.

2.3 STANDARDS FOR DISCHARGE OF TRADE EFFLUENT

(TNPCB B.P. Ms. No. 30 Dated: 21.02.1984)

Sl. No.	Parameters	Standards for discharge of trade effluent into			
		Inland surface water	Public sewers	On land for irrigation	Marine costal areas
(1)	(2)	(3)	(4)	(5)	(6)
1	Color and odor	-	-	-	-
2	Suspended Solids, mg/L	100	600	200	a) For Process waste water- 100 b) For Cooling water effluent 10 percent above total suspended matter of influent cooling water
3	Particle size of Suspended solid	shall pass 850 micron IS sieve	-	-	a. Floatable solids maximum 3 mm b. settable solids maximum 850 micron

4	Dissolved solids (inorganic) mg/L	2100	2100	2100	-
5	pH value	5.5 to 9	5.5 to 9	5.5 to 9	5.5 to 9
6	Temperature	40°C at the point of discharge	45°C at the point of discharge	-	45°C at the point of discharge
7	Oil & Grease, mg/L	10	20	10	20
8	Total Residual Chlorine, mg/L	1	-	-	1
9	Ammonical Nitrogen (as N), mg/L	50	50	-	50
10	Total Kjeldahl Nitrogen (as N), mg/L	100	-	-	100
11	Free Ammonia (as NH_3), mg/L	5	-	-	5
12	Biochemical Oxygen Demand (3 days at 27°C), mg/L	30	350	100	100
13	Chemical Oxygen Demand, mg/L	250	-	-	250
14	Arsenic (as As), mg/L	0.2	0.2	0.2	0.2
15	Mercury (as Hg), mg/L	0.01	0.01	0.01	0.01
16	Lead (as Pb), mg/L	0.1	1	1	1
17	Cadmium(as Cd), mg/L	2	1	1	2
18	Hexavalent Chromium (as Cr^{+6}), mg/L	0.1	2	1	1
19	Total Chromium (as Cr), mg/L	2	2	2	2
20	Copper (as Cu) mg/L	3	3	3	3
21	Zinc (as Zn) mg/L	1	1.5	1.5	1.5
22	Selenium (as Se) mg/L	0.05	0.05	0.05	0.05
23	Nickel (as Ni) mg/L	3	3	3	3
24	Boron (as B) mg/L	2	2	2	2
25	Percent Sodium %	-	60	60	-
26	Residual Sodium Carbonate mg/L	-	-	5	-
27	Cyanide (as CN) mg/L	0.2	2.0	0.2	0.2

28	Chloride (as Cl) mg/L	1000	1000	600	-
29	Fluoride (as F) mg/L	2	15	2	15
30	Dissolved Phosphates (as P) mg/L	5	-	-	-
31	Sulphates (as SO_4) mg/L	1000	1000	1000	1000
32	Sulphide (as S) mg/L	2	-	2	5
33	Pesticides	Absent	Absent	Absent	Absent
34	Phenolic Compounds (as C_6H_5OH) mg/L	1	5	5	5
35	Radio active materials a) Alpha emitters micro curie/ml	10^{-7}	10^{-7}	10^{-8}	10^{-7}
	b). Beta emitters micro curie /ml	10^{-6}	10^{-6}	10^{-6}	10^{-7}

2.4 STANDARDS FOR DISCHARGE OF SEWAGE

S.No.	Parameters	Standards
1	pH	5.5 to 9
2	Total Suspended solids mg/L	30
3	Biochemical Oxygen Demand (3 days at 27°C) mg/L	20

2.5 DRINKING WATER – SPECIFICATION (IS 10500:1991)

Sl.No.	Characteristic	Requirement (Desirable Limit)	Permissible Limit in the Absence of Alternate Source
Elemental Characteristics			
i)	Colour, Hazen units, Max	5	25
ii)	Odour	Unobjectionable	-
iii)	Taste	Agreeable	-
iv.	Turbidity, NTU, *Max*	5	10
v)	pH Value	6.5 to 8.5	No relaxation
vi)	Total hardness (as $CaCO_3$),	300	600

	mg/L		
vii)	Iron (as Fe) mg/L, *Max*	0.3	1.0
viii)	Chlorides (as Cl), mg/L, *Max*	250	1000
ix)	Residual free chlorine, mg/L, *Min*	0.2	-
Desirable Characteristics			
x)	Dissolved solids, mg/L, *Max*	500	2000
xi)	Calcium (as Ca) mg/L, *Max*	75	200
xii)	Copper (as Cu), mg/L, *Max*	0.05	1.5
xiii)	Manganese (as Mn) mg/L, *Max*	0.1	0.3
xiv)	Sulphate (as SO_4) mg/L, *Max*	200	400
xv)	Nitrate (as NO_3) mg/L, *Max*	45	100
xvi)	Fluoride (as F) mg/L, *Max*	1.0	1.5
xvii)	Phenolic compounds (as C_6H_5OH) mg/L, *Max*	0.001	0.002
xviii)	Mercury (as Hg) mg/L, *Max*	0.001	No relaxation
xix)	Cadmium (as Cd) mg/L, *Max*	0.01	No relaxation
xx)	Selenium (as Se) mg/L, *Max*	0.01	No relaxation
xxi)	Arsenic (as As) mg/L, *Max*	0.05	No relaxation
xxii)	Cyanide (as CN) mg/L, *Max*	0.05	No relaxation
xxiii)	Lead (as Pb) mg/L, *Max*	0.05	No relaxation
xxiv)	Zinc (as Zn) mg/L, *Max*	5	15
xxv)	Anionic detergents (as MBAS) mg/L, *Max*	0.2	1.0
xxvi)	Chromium (as Cr^{6+}) mg/L, *Max*	0.05	No relaxation
xxvii)	Polynuclear aromatic hydrocarbons (as PAH) g/L, *Max*	-	-
xxviii)	Mineral oil mg/L, *Max*	0.01	0.03
xxix)	Pesticides mg/L, *Max*	Absent	0.001

xxx)	Radioactive materials a) Alpha emitters Bq/L, *Max*	-	0.1
	b)Betta emitters pci/L, *Max*	-	1
xxxi)	Alkalinity mg/L, *Max*	200	600
xxxii)	Aluminium (as Al) mg/L, *Max*	0.03	0.2
xxxiii)	Boron mg/L, *Max*	1	5

2.6 TOLERANCE LIMITS FOR INLAND SURFACE WATERS SUBJECT TO POLLUTION IS : 2296 – 1982

Class A	**Drinking Water source without Conventional Treatment but after Disinfection.-** The quality of inland surface water under this category shall be such that it will be fit for human consumption without any treatment, except disinfection by approved methods. This classification is intended primarily for waters having water shed which are uninhabited and otherwise protected, which requires approved disinfection with additional treatment when necessary to remove naturally present impurities. This water is considered safe for drinking, culinary and food processing purposes.
Class B	**Outdoor Bathing.-** This water is useful for bathing. The water under proper sanitary supervision by the controlling authorities will meet accepted standards of water quality for outdoor bathing places and considered safe and satisfactory for bathing purposes.
Class C	**Drinking Water Source with Conventional Treatment Followed by Disinfection.-** This is a source of water supply for drinking, culinary and food processing purposes after it is subjected to approved treatment such as coagulation, sedimentation, filtration and disinfection, with additional treatment, if necessary, to remove naturally present impurities.
Class D	**Fish Culture and Wild Life Propagation.-** The water is fit for fish and wild life propagation.
Class E	**Irrigation, Industrial Cooling or Controlled Waste Disposal.-** This water is suitable for agriculture, industrial cooling or process water supply, fish survival etc. The waters without treatment, except for natural impurities which may be present therein, will be suitable for agricultural uses and will permit fish survival. The waters are also usable after special treatment by the users as may be needed under each particular circumstance for industrial purposes, including cooling and process water.

S.No.	Characteristics	Tolerance Limit				
		Class A	**Class B**	**Class C**	**Class D**	**Class E**
1	pH value	6.5 to 8.5	6.5 to 8.5	6.5 to 8.5	6.5 to 8.5	6.0 to 8.5
2	Dissolved oxygen, mg/L, *Min*	6	5	4	4	
3	Biochemical Oxygen Demand (5 days at 20°C), mg/L, *Max*	2	3	3		
4	Total coliform organisms, MPN/100ml, *Max*	50†	500††	5000†††		
5	Colour, Hazen units, *Max*	10	300	300		
6	Odour	Unobjectionable				
7	Taste	Tasteless				
8	Total dissolved solids, mg/L, *Max*	500		1500		2100
9	Total hardness (as $CaCO_3$), mg/L, *Max*	300				
10	Calcium hardness (as $CaCO_3$), mg/l, *Max*	200				
11	Magnesium (as $CaCO_3$), mg/L, *Max*	100				
12	Copper (as Cu), mg/L, *Max*	1.5		1.5		
13	Iron (as Fe), mg/L, *Max*	0.3		50		
14	Manganese (as Mn), mg/L, *Max*	0.5				
15	Chlorides (as Cl), mg/L, *Max*	250		600		600
16	Sulphates (as SO_4), mg/L, *Max*	400		400		1000

17	Nitrates (as NO_3), mg/L, *Max*	20		50		
18	Fluorides (as F), mg/L, *Max*	1.5	1.5	1.5		
19	Phenolic compounds (as C_6H_5OH), mg/L, *Max*	0.002	0.005	0.005		
20	Mercury (as Hg), mg/L, *Max*	0.001				
21	Cadmium (as Cd), mg/L, *Max*	0.01		0.01		
22	Selenium (as Se), mg/L, *Max*	0.01		0.05		
23	Arsenic (as As), mg/L, *Max*	0.05	0.2	0.2		
24	Cyanides (as CN), mg/L, *Max*	0.05	0.05	0.05		
25	Lead (as Pb), mg/L, *Max*	0.1	-	0.1		
26	Zinc (as Zn), g/L, *Max*	15	-	15		
27	Chromium (as $Cr^{6+)}$, mg/L, *Max*	0.05	0.05	0.05		
28	Anionic detergents, (as MBAS), mg/L, *Max*	0.2	1	1		
29	Polynuclear aromatic hydrocarbons (PAH), mg/L, *Max*	0.2				
30	Mineral oil, mg/L, *Max*	0.01				
31	Barium (as Ba), mg/L, *Max*	1				
32	Silver (as Ag), mg/L, *Max*	0.05				
33	Pesticides	Absent				
34	Alpha emitters, µc/ml, *Max*	10^{-9}	10^{-9}	10^{-9}	10^{-9}	10^{-9}
35	Beta emitters, µc/ml, *Max*	10^{-8}	10^{-8}	10^{-8}	10^{-8}	10^{-8}

36	Insecticides, mg/L, *Max*			Absent		
37	Oil and grease, mg/L, *Max*			0.1	0.1	
38	Free ammonia (as N) mg/L, *Max*				1.2	
39	Electrical conductance at 25°C, mhos, *Max*				1000 x10^{-6}	2250 x 10^{-6}
40	Free carbon dioxide (as CO_2) mg/L, *Max*				6	
41	Sodium absorption ratio *Max*					26
42	Boran (as B), mg/L, *Max*					2
43	Percent sodium					60

† If MPN count is noticed to be more than 50, then regular tests should be carried out. The criteria shall be satisfied if during a period of time not more than 5 percent of the samples show more than 200 MPN and not more than 20 percent of the samples show more than 50 MPN. Further the fecal colifroms should not more than 40 percent of the total coliforms.

†† If MPN count is noticed to be more than 500, regular tests should be carried out. The criteria shall be satisfied if during a period of time not more than 5 percent of the samples show more than 2000 MPN and not more than 20 percent of the samples show more than 500 MPN.

††† If MPN count is noticed to be more than 5000, then regular tests should be carried out. The criteria shall be satisfied if during a period of time not more than 5 percent of the samples show more than 20000 MPN and not more than 20 percent of the samples show more than 5000 MPN. Further the fecal coliform should not be more than 40 percent of the total coliforms.

2.7 CONSENT FEE APPLICABLE UNDER THE WATER (P&CP) ACT, 1974

[G.O. Ms No. 97, Environment and Forests (EC 1) Department, Dated17.8.2009, G.O. Ms No. 71, Environment and Forests (EC 1) Department, Dated 26.5.2010]

S. No.	**Gross Fixed Assets**	**Amount of Consent Fee (Rupees)**		
		Red Category	**Orange Category**	**Green Category**
1	Upto Rs. 1 lakh	300	200	150
2	Above Rs. 1 lakh and upto Rs. 2 lakhs	450	400	300
3	Above Rs. 2 lakhs and upto Rs. 3 lakhs	600	500	450

4	Above Rs. 3 lakhs and upto Rs. 4 lakhs	750	700	600
5	Above Rs. 4 lakhs and upto Rs. 5 lakhs	900	800	750
6	Above Rs. 5 lakhs and upto Rs. 6 lakhs	1,200	1,100	900
7	Above Rs. 6 lakhs and upto Rs. 7 lakhs	1,350	1,200	1,050
8	Above Rs. 7 lakhs and upto Rs. 8 lakhs	1,500	1,400	1,200
9	Above Rs. 8 lakhs and upto Rs. 9 lakhs	1,650	1,500	1,350
10	Above Rs. 9 lakhs and upto Rs. 10 lakhs	1,800	1,700	1,500
11	Above Rs. 10 lakhs and upto Rs. 15 lakhs	2,550	2,200	1,875
12	Above Rs. 15 lakhs and upto Rs. 20 lakhs	3,000	2,600	2,250
13	Above Rs. 20 lakhs and upto Rs. 25 lakhs	3,450	3,000	2,625
14	Above Rs. 25 lakhs and upto Rs. 35 lakhs	4,125	3,500	3,000
15	Above Rs. 35 lakhs and upto Rs. 45 lakhs	5,100	4,500	3,750
16	Above Rs. 45 lakhs and upto Rs. 55 lakhs	6,150	5,250	4,500
17	Above Rs. 55 lakhs and upto Rs. 65 lakhs	7,200	6,000	5,250
18	Above Rs. 65 lakhs and upto Rs. 75 lakhs	9,000	7,500	6,000
19	Above Rs. 75 lakhs and upto Rs. 1 crore	11,250	9,000	7,500
20	Above Rs. 1 crore and upto Rs. 5 crores	15,000	12,750	10,500
21	Above Rs. 5 crores and upto Rs. 10 crores	Rs. 70 per lakh.	Rs. 45 per lakh.	Rs. 30 per lakh.
22	Above Rs. 10 crores and upto Rs. 50 crores	Rs. 70,000/- plus Rs. 26 per lakh	Rs. 45,000/- plus Rs. 20 per lakh	Rs. 30,000/- plus Rs. 8 per lakh
23	Above Rs. 50 crores and upto Rs. 100 crores	Rs. 1,74,000/- plus Rs. 15 per lakh	Rs. 1,25,000/- plus Rs. 10 per lakh	Rs. 62,000/- plus Rs. 8 per lakh

24	Above Rs. 100 crores and upto Rs. 1000 crores	Rs. 2,49,000/- plus Rs. 3.50 per lakh	Rs. 1,75,000/- plus Rs. 2.50 per lakh	Rs. 94,000/- plus Rs. 2 per lakh
25	Above Rs. 1000 crores	Rs. 5,64,000/- plus Rs. 1.75 per lakh (Rs. 20,00,000/- Maximum)	Rs. 4,00,000/- plus Rs. 1 per lakh (Rs. 15,00,000/- Maximum)	Rs. 2,74,000/- plus Rs. 1 per lakh (Rs. 5,75,000/- Maximum)

2.8 PARAMETERS TO BE ANALYZED FOR THE INDUSTRIAL EFFLUENT SAMPLES (Source: TNPCB Circular Memo No. 177/DDL/TNPCB/MDS/94 dated 24.3.94)

Sl.No	Type of industry	Parameters
1	Aluminium	Core Parameters, Fluoride, Aluminium, Sodium, Calcium
2	Asbestos	Core Parameter, Fluoride
3	Beverages	Core Parameters
4	Cement, Concrete, Lime & Gypsum	Core Parameters, Calcium & Phosphate
5	Caustic Soda	Core Parameters, Mercury, Total Residual Chlorine
6	Cold Storage/Refrigerator	Core Parameters, Sulphide, Ammoniacal Nitrogen
7	Dairy	Core Parameters
8	Distillery	Core Parameters, Sulphide, Total Kjeldahl Nitrogen, Phosphate, Pottasium, Volatile solids
9	Dye Stuff/Dye Intermediate	Core Parameters, Phenolic Compounds, Total Kjeldahl Nitrogen, Cadmium, Copper, Manganese, Lead, Nickel, Zinc, Chromium
10	Engineering with Electroplating / Heat Treatment	Core Parameters, Cyanide, Hexavalent & Total Chromium, Nickel, Zinc, Copper, Lead, Cadmium
11	Fertilizers – Nitrogenous	Core Parameters, Ammonical Nitrogen, Total Kjeldahl Nitrogen, Phosphate, Sulphide, Hexavalent & Total Chromium, Free Ammonia, Nitrate Nitrogen, Arsenic, Cyanide, (Wherever required)
12	Fertilizer - Phosphatic	Core Parameters, Fluoride, Phosphate, Total & Hexavalent Chromium
13	Film Processing Unit	Core Parameters, Silver, Cyanide, Thiocyanate
14	Glass/Ceramic	Core Parameters, Zinc, Chromium
15	Glue	Core Parameters
16	Inorganic Chemicals/Alkalis	Core Parameters, Fluorides, Cyanide, Sulphide, Phosphate, Arsenic, Cadmium, Total & Hexavalent Chromium, Copper, Lead, Zinc, Mercury, Aluminium

17	Leather Tanning	Core Parameters, Ammonical Nitrogen, Sulphide, Total & Hexavalent Chromium, Percent Sodium, Phenolic compounds
18	Meat/Slaughter House	Core Parameters, Ammonical Nitrogen, Total Kjeldahl Nitrogen, Sulphide
19	Organic Chemicals	Core Parameters, Total Kjeldahl Nitrogen, Fluoride, Cyanide, Phenolic Compounds, Pesticides
20	Petroleum Refinery	Core Parameters, Cyanide, Phenolic Compounds, Total Chromium (use of chromium in cooling system), Hexavalent Chromium, Sulphide, Zinc, Phosphate
21	Pulp & Paper	Core Parameters, Ammonical Nitrogen, Total Kjeldahl Nitrogen, Sulphide, Phenolic Compounds, Percent Sodium
22	Rubber Products	Core Parameters, Phenolic Compounds
23	Starch/Sugar	Core Parameters, Total Kjeldahl Nitrogen, Percent
24	Steel	Core Parameters, Cyanide, Total & Hexavalent Chromium, Copper, Nickel, Zinc, Total Iron
25	Textile/Bleaching	Core Parameters, Total Residual Chlorine
26	Textile/Processing	Core Parameters, Total Kjeldahl Nitrogen, Percent Sodium, Sulphide, Phenolic Compounds
27	Thermometers	Core Parameters, Mercury
28	Viscose Rayon	Core Parameters, Zinc, Total Chromium
29	Polyster Fibres	Core Parameters, Zinc, Total Chromium, Phenolic Compounds
30	Sewage	Total Suspended Solids, BOD
31	Petrochemicals	Core Parameters, Phenolic Compounds, Sulphide, Fluoride, Total & Hexavalent Chromium
32	Pharmaceuticals Manufacturing & Formulation Industry	Core Parameters, Mercury, Hexavalent Chromium, Lead, Cyanide, Phenolic compounds, Sulphide, Phosphate (Parameters other than core parameters to be analysed depending upon the products)
33	Paint Industry	Core Parameters, Bio Assay Test, Phenolic Compounds, Lead, Total & Hexavalent Chromium, Copper, Zinc, Nickel
34	Sea Food Industry	Core Parameters, Total Kjeldahl Nitrogen, Ammonical Nitrogen, Nitrate Nitrogen
35	Synthetic Rubber	Core Parameters
36	Integrated Iron & Steel Plant	Core Parameters, cyanide, Phenolic compounds, Ammonical Nitrogen,
37	Food & Fruit Processing Industry	Core Parameters
38	Natural Rubber Processing Industries (Centrifuging & Cleaning units)	Core Parameters, Kjeldahl Nitrogen, Ammonical Nitrogen, Sulphide.

Core Parameters ***:*** *pH, Total Suspended Solids, Total Dissolved Solids, Chlorides, Sulphates, Biochemical Oxygen Demand, Chemical Oxygen Demand, Oil & Grease.*

CHAPTER 3

WATER (P&CP) CESS ACT, 1977

3.1 RATE OF CESS ON THE BASIS OF WATER CONSUMPTION (Ministry of Environment and Forests Notification**,** New Delhi, the 6th May, 2003)

S.O.499(E). – In exercise of powers conferred by sub-section (2) and sub-section (2A) of section 3 of the Water (Prevention and Control of Pollution) Cess Act, 1977 (36 of 1977) and in supersession of the notification of the Government of India in the Ministry of Environment and Forests number S.O. 182 (E), dated the 28th February, 1992, except as respects things done or omitted to be done before such supersession the Central Government hereby specifies-

(a) The rate of cess given in column (2) of the Table below as the rates of cess payable by every person carrying on an industry as mentioned in the aforesaid Act and by every local authority, calculated on the basis of the water consumed by him or it, as the case may be, for the purpose mentioned in the corresponding entry in column (1) thereof; and

(b) The rates of cess given in column (3) of the Table below as the rates of cess payable by a person carrying on an industry as mentioned in the aforesaid Act and by every local authority consuming water for domestic purpose calculated on the basis of the water consumed by him or it, for the purpose mentioned in the corresponding entry in column (1) thereof, it he or it fails to comply with any of the provisions of section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or any of the standards laid down by the Central Government under the Environment (Protection) Act, 1986 (29 of 1986).

TABLE

S.No.	Purpose for which water is consumed	Rate of cess under sub-section (2) of section 3	Rate of cess under Sub-section 2(A) of section (3)
(1)	(2)	(3)	(4)
1.	Industrial cooling, spraying in mine pits or boiler feeds	Five paise per kilolitre	Ten paise per kilolitre
2.	Domestic purpose	Two paise per kilolitre	Three paise per kilolitre

3.	Processing whereby water gets polluted and the pollutants are- (i) easily biodegradable; or (ii) non-toxic; or (iii) both non toxic and easily biodegradable	Ten paise per kilolitre	Twenty paise per kilolitre
4.	Processing where by water gets polluted and the pollutants are - (i) not easily biodegradable; or (ii) toxic; or (iii) both toxic and not easily biodegradable	Fifteen paise per kilolitre	Thirty paise per kilolitre

- Further, in exercise of the powers conferred by sub-section (1) of section 16 of the Water (Prevention and Control of Pollution) Cess Act, 1977 (36 of 1977), the Central Government hereby exempts all industries consuming water less than ten kilo litres per day from the levy of cess specified in this notification. Provided that no such exemption shall be applicable in case of industries generating 'hazardous wastes' as defined in clause (1) of rule 3 of the Hazardous Waste (Management and Handling) Rules, 1989, made under sections, 6,8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986).
- This notification shall come into force on the date of publication in the Official Gazette.

[F.No.17(8)/95-PL]
C.VISWANATH, Jt.Secy.

3.2 CESS RETURN FORMAT

FORM I

(See rule 4 of the Water (Prevention and Control of Pollution) Cess Rules, 1978]
Return regarding Water consumed during the month of .....

Name and address of the Consumer	Purpose for which water consumed	Reading at the beginning of the first day of the calendar month under report	Reading at the end of the last day of calendar month under report	Quantity of water consumed in Kilo litres	If the meter was out of order the monthly average consumption of water for the previous 3 months of working period	Quantity of water qualifying for rebate according to the assessee	Rem arks (*)
1	2	3	4	5	6	7	8
1.	Industrial Cooling spraying in mine pits or boilers feed	i) From Municipal water supply mains ii) From well/tubewell iii) From canal iv) From river v) From any other source					
2.	Domestic purpose	i) From Municipal water supply mains ii) From well/tubewell iii) From canal iv) From river v) From any other source					
3.	Processing whereby water gets polluted and the pollutants are easily biodegradable	i) From Municipal water supply mains ii) From well/tubewell iii) From canal iv) From river v) From any other source					
4.	Processing whereby water gets polluted and the pollutants are not easily biodegradable and are toxic	i) From Municipal water supply mains ii) From well/tubewell iii) From canal iv) From river v) From any other source					

(*) for claiming rebate under Col. 7 the assessee shall indicate in this column the analytical and other reports annexed to this return in support of this claim.

Signature of the consumer
Name
Address

ANNEXURE TO FORM I

Report of Analysis to treated effluent showing performance of the treatment plant – For the month of .....

Sample collected on .....
Sample tested on .....
By the laboratories .....

S. No	Polluting parameters as mentioned in the conditions imposed under consent granted under section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974	Maximum permissible limits or ranges allowed as per consent conditions	Concentration of range of parameters as per report	Date on which	
				There was break down or failure of the plant	On which under performance was noticed
1	2	3	4	5	6

Signature .....
Date .....
Name .....
Address .....

[SCHEDULE]
(See rule 6)

S. No	Name of Industry	Category	Maximum quantity of Water
1	2	3	4
1	Ferrous Metallurgical	Integrated Iron & Steel	20 cubic metres per tonne of finished steel
2.	Non-ferrous metallurgical	a) Copper Smelters	100 cubic metres as per tome of copper produced
		b) Zinc smelters	50 Cubic metres per tonne of zinc metal produced
3	Chemical	a) Caustic soda	
		i) Mercury cell process	5 Cubic metres per tonne of caustic soda produced (excluding cooling water) and 5 cubic metres per tonne of caustic soda produced for cooling water
		ii) Membrane cell process	5 Cubic metres per tonne of caustic soda including cooling water
4	Textile	a) Manmade fibre	
		i) Nylon & Polyester	170 cubic metre per tonne fibre produced
		ii) Viscose rayon	200 Cubic metre per tone of fibre produced
5	Paper	a) Small pulp and paper	
		i) Agro-residue based	200 Cubic metre per tonne of paper
		ii) Waste paper based	75 cubic metre per tonne of paper
		b) Large Pulp and Paper	
		i) Pulp and Paper	250 cubic metre per tonne of paper
		(ii) Rayon grade paper	200 cubic metre per tonne of paper

6.	Fertilizer	a) Straight nitrogenous fertilizer	15 Cubic metre per tonne of urea or equivalent produced
		b) Straight phosphatic fertilizer (single super phosphate and Triple super phosphate) ex-including manufacture of any acid	2 cubic metre per tonne of single Super Phosphate/Triple Super Phosphate
		c) Complex Fertilizer	15 cubic metre per tonne in case the primary product is nitrogenous fertilizer and 2 cubic meter per tonne in case the primary product is a phosphatic fertilizer
7.	Processing of animal or vegetable products industry including processing of milk, meat, hides and skins all agricultural products and their waste	a) Tanneries	30 cubic metre per tonne of raw hides
		b) Natural rubber	6 cubic metre per tonne of rubber
		c) Starch, glucose and related products	10 cubic metre per tonne of maize crushed
		d) Dairy	4 cubic meter per kilo litre of milk processed
		e) Jute	1.5 cubic metre per tonne of jute produced
		f) Sugar	2 Cubic metre per tonne of cane crushed
		g) Maltry	8.5 cubic metre per tonne of grain processed
		h) Brewery	1 cubic meter per kilo of beer produced
		i) Distillery	15 cubic metre per kilo litre of alcohol produced

[No.1(14)/91-PL/CPA]
N. BAGCHI, Director Pollution

Footnote :- The Principal Rules were published in the Gazette of India vide Notification G.S.R.378(E), dated the 4th July, 1978.

CHAPTER 4

AIR (P&CP) ACT, 1981

4.1 THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981, AS AMENDED IN 1987

Salient Features

Section 17	Empowers the Board to lay down emission, noise level and ambient air quality standards in consultation with Central Pollution Control Board.
Section 19	Entire State of Tamil Nadu has been declared as air pollution control area by the State Government.
Section 21	Requires the industries to obtain the consent from the Board to establish/ operate the unit in the air pollution control area.
Section 22	Prohibits the emission of pollutants in excess of the standards laid down by the Board.
Section 22A	Empowers the Board to seek intervention of Court to restrain emissions exceeding the standards.
Section 23	Requires the industries to furnish information on the emissions in excess of the standards laid down by the Board, to the Board, the Collector of the District, the Revenue Divisional Officer, the Executive Authority of the Local body and the nearest Police Station.
Section 26	Empowers the collection of samples of air or emissions from any chimney, stack, flue or duct or any other outlet.
Section 31	Provides for appeal against the orders of the Board under Section21. Appeal has to be made to the Appellate Authority, within thirty days from the date of communication of the order.
Section 31A	Empowers the Board to issue direction for closure, prohibition or regulation of any industry, operation or process or the stoppage or regulation of supply of electricity, water or any other service.
Section 37	Failure to comply with the provisions of section 21 (or) section 22 or directions issued under section 31A is punishable with imprisonment for a term which shall not be less than one year and six months, but which may extend to six years and with fine. Continued offence is punishable with an additional fine which may extend to five thousand rupees for every day during which such failure continues. If the offence continues beyond one year after the date of conviction, the offence is punishable with imprisonment which shall not be less than two years but which may extend to seven years and with fine.

Section 38	Offences like furnishing false information, non-furnishing information is punishable with imprisonment upto 3 months and a fine upto 10,000 rupees or both.

4.2 CONSENT FEE APPLICABLE UNDER THE AIR (P&CP) ACT, 1981

[G.O. Ms No. 98, Environment and Forests (EC 1) Department, Dated 17.8.2009, G.O. Ms No. 72, Environment and Forests (EC 1) Department, Dated 26.5.2010]

S.No.	**Gross Fixed Assets**	**Amount of Consent Fee (Rupees)**		
		Red Category	**Orange Category**	**Green Category**
1	Upto Rs. 1 lakh	300	200	150
2	Above Rs. 1 lakh and upto Rs. 2 lakhs	450	400	300
3	Above Rs. 2 lakhs and upto Rs. 3 lakhs	600	500	450
4	Above Rs. 3 lakhs and upto Rs. 4 lakhs	750	700	600
5	Above Rs. 4 lakhs and upto Rs. 5 lakhs	900	800	750
6	Above Rs. 5 lakhs and upto Rs. 6 lakhs	1,200	1,100	900
7	Above Rs. 6 lakhs and upto Rs. 7 lakhs	1,350	1,200	1,050
8	Above Rs. 7 lakhs and upto Rs. 8 lakhs	1,500	1,400	1,200
9	Above Rs. 8 lakhs and upto Rs. 9 lakhs	1,650	1,500	1,350
10	Above Rs. 9 lakhs and upto Rs. 10 lakhs	1,800	1,700	1,500
11	Above Rs. 10 lakhs and upto Rs. 15 lakhs	2,550	2,200	1,875
12	Above Rs. 15 lakhs and upto Rs. 20 lakhs	3,000	2,600	2,250
13	Above Rs. 20 lakhs and upto Rs. 25 lakhs	3,450	3,000	2,625
14	Above Rs. 25 lakhs and upto Rs. 35 lakhs	4,125	3,500	3,000
15	Above Rs. 35 lakhs and upto Rs. 45 lakhs	5,100	4,500	3,750
16	Above Rs. 45 lakhs and upto Rs. 55 lakhs	6,150	5,250	4,500

17	Above Rs. 55 lakhs and upto Rs. 65 lakhs	7,200	6,000	5,250
18	Above Rs. 65 lakhs and upto Rs. 75 lakhs	9,000	7,500	6,000
19	Above Rs. 75 lakhs and upto Rs. 1 crore	11,250	9,000	7,500
20	Above Rs. 1 crore and upto Rs. 5 crores	15,000	12,750	10,500
21	Above Rs. 5 crores and upto Rs. 10 crores	Rs. 70 per lakh.	Rs. 45 per lakh.	Rs. 30 per lakh.
22	Above Rs. 10 crores and upto Rs. 50 crores	Rs. 70,000/- plus Rs. 26 per lakh	Rs. 45,000/- plus Rs. 20 per lakh	Rs. 30,000/- plus Rs. 8 per lakh
23	Above Rs. 50 crores and upto Rs. 100 crores	Rs. 1,74,000/- plus Rs. 15 per lakh	Rs. 1,25,000/- plus Rs. 10 per lakh	Rs. 62,000/- plus Rs. 8 per lakh
24	Above Rs. 100 crores and upto Rs. 1000 crores	Rs. 2,49,000/- plus Rs. 3.50 per lakh	Rs. 1,75,000/- plus Rs. 2.50 per lakh	Rs. 94,000/- plus Rs. 2 per lakh
25	Above Rs. 1000 crores	Rs. 5,64,000/- plus Rs. 1.75 per lakh (Rs. 20,00,000/- Maximum)	Rs. 4,00,000/- plus Rs. 1 per lakh (Rs. 15,00,000/- Maximum)	Rs. 2,74,000/- plus Rs. 1 per lakh (Rs. 5,75,000/- Maximum)

4.3 NATIONAL AMBIENT AIR QUALITY STANDARDS

(CPCB Notification No. B-29016/20/90/PCI-I Dated 18.11.2009)

S No.	Pollutant	Time Weighted Average	Concentration in Ambient Air	
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)
(1)	(2)	(3)	(4)	(5)
1	Sulphur Dioxide (SO_2), $\mu g/m^3$	Annual*	50	20
		24 hours**	80	80
2	Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual*	40	30
		24 hours**	80	80
3	Particulate Matter (size less than 10 µm) or PM_{10} $\mu g/m^3$	Annual*	60	60
		24 hours**	100	100
4	Particulate Matter (size less than 2.5µm) or $PM_{2.5}$ $\mu g/m^3$	Annual*	40	40
		24 hours**	60	60
5	Ozone (O_3), $\mu g/m^3$	8 hours**	100	100
		1 hour**	180	180
6	Lead (Pb), $\mu g/m^3$	Annual*	0.50	0.50
		24 hours**	1.0	1.0
7	Carbon Monoxide (CO), mg/m^3	8 hours**	02	02
		1 hour**	04	04
8	Ammonia (NH_3), $\mu g/m^3$	Annual*	100	100
		24 hours**	400	400
9	Benzene (C_6H_6), $\mu g/m^3$	Annual*	05	05
10	Benzo (a) Pyrene (BaP) – particulate phase only, ng/m^3	Annual*	01	01
11	Arsenic (As), ng/m^3	Annual*	06	06
12	Nickel (Ni), ng/m^3	Annual*	20	20

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

4.4 STANDARDS FOR CHLORINE EMISSION

Copy of:- TNPCB : B.P.No.: 504 Date: 29.08.91

Ref: Board's resolution No.111 - 54 dated 9.8.91

ORDER:

As per section 17 (1) of the Air (P & CP) Act, 1981 the Board may lay down standards for emission of any air pollutant and ambient air quality in consultation with Central Pollution Control Board. The Central Pollution Control Board has not laid down standards for emission of chlorine. In the minutes of the XXVIII Conference of Chairmen and Member – Secretaries of Central and State Pollution Control Boards held at Shimla, it has been indicated that the State Boards should adopt suitable standards for emission from industry to which Central Board has not so far evolved standards and in the event of Central Board coming out with relevant standards, the stricter of the two shall prevail. Meanwhile problem due to leakage of chlorine gas from chloro-alkali industries in Tamil Nadu was brought to the notice of the Tamil Nadu Pollution Control Board. Government of Tamil Nadu requested the Board to evolve emission as well as ambient air quality standards for Chlorine gas. In this regard a meeting was convened on 10.7.91 at 11.00 A.M. Experts from industries and institutions attended the meeting.

In the meeting, the members reviewed in depth, the emission as well as Ambient Air Quality Standards adopted by various countries in respect of Chlorine gas and hydrochloric acid vapours and mist. The Committee has also examined the present status of air pollution control devices installed in chloro-alkali industries in Tamil Nadu.

Considering all the above aspects in detail, the following limits were suggested for the emission from the stacks and in the ambient air.

	Prescribed Limit
1. Chlorine Gas	
a. Emission from Hypo-tower of Chlor-Alkali industry	15mg/m^3
b. In the Ambient air	3 mg/m^3
2. Hydrochloric and Vapours and Mist	
a. Emission from all processes HCI Manufacturing unit	35 mg / m^3
b. In the Ambient Air	7 mg / m^3

The above decisions were placed before the Board at its meeting held on 9.8.91. The Board examined the above decision carefully and approved the above standards (Vide its resolution No.111-54 dated 9.8.91) for chlorine emission.

Sd/…
for Chairman

CHAPTER 5

ENVIRONMENT (PROTECTION) ACT, 1986

5.1 THE ENVIRONMENT (PROTECTION) ACT, 1986 (NO. 29 OF 1986)

(Source: CPCB PCLS/02/2010 Sixth Edition)

Salient Features

Section 2	**Definitions.-** In this Act, unless the context otherwise requires,-- (a) "environment" includes water, air and land and inter-relationship which exists among and between water, air, and land, and human beings, other living creatures, plants, micro-organism and property; (d) "handling", in relation to any substance, means the manufacture, processing, treatment, package, storage, transportation, use, collection, destruction, conversion, offering for sale, transfer or the like of such substance; (e) "hazardous substance" means any substance or preparation which, by reason of its chemical or physico-chemical properties or handling, is liable to cause harm to human beings, other living creatures, plant, micro-organism, property or the environment;
Section 3	**Power of Central Government to take measures to protect and improve environment.-** (1) Subject to the provisions of this Act, the Central Government shall have the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing controlling and abating environmental pollution. (2) In particular, and without prejudice to the generality of the provisions of sub-section (1), such measures may include measures with respect to all or any of the following matters, namely:- (i) co-ordination of actions by the State Governments, Officers and other authorities -- (a) under this Act, or the rules made there under, or (b) under any other law for the time being in force which is relatable to the objects of this Act; (ii) planning and execution of a nation-wide progarmme for the prevention, control and abatement of environmental pollution; (iii) laying down standards for the quality of environment in its various aspects; (iv) laying down standards for emission or discharge of environmental

	pollutants from various sources whatsoever; Provided that different standards for emission or discharge may be laid down under this clause from different sources having regard to the quality or composition of the emission or discharge of environmental pollutants from such sources; (v) restriction of areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards (vi) laying down procedures and safeguards for the prevention of accidents which may cause environmental pollution and remedial measures for such accidents; (vii) laying down procedures and safeguards for the handling of hazardous substances; (viii) examination of such manufacturing processes, materials and substances as are likely to cause environmental pollution; (ix) carrying out and sponsoring investigations and research relating to problems of environmental pollution; (x) inspection of any premises, plant, equipment, machinery, manufacturing or other processes, materials or substances and giving, by order, of such directions to such authorities, officers or persons as it may consider necessary to take steps for the prevention, control and abatement of environmental pollution ;
Section 4	**Appointment of officers and their powers and functions.-**
Section 5	**Powers to give directions.-** Notwithstanding anything contained in any other law but subject to the provisions of this Act, the Central Government may, in the exercise of its powers and performance of its functions under this Act, issue directions in writing to any person, officer or any authority and such person, officer or authority shall be bound to comply with such directions *Explanation* – For the avoidance of doubts, it is hereby declared that the power to issue directions under this section includes the power to direct – (a) the closure, prohibition or regulation of any industry, operation or process; or (b) stoppage or regulation of the supply of electricity or water or any other service.
Section 6	**Rules to regulate environmental pollution.-** (1) The Central government may, by notification in the Official Gazette, make rules in respect of all or any of the matters referred to in section 3. (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:- (a) the standards of quality of air, water or soil for various areas and purposes;

	(b) the maximum allowable limits of concentration of various environmental pollutants (including noise) for different areas; (c) the procedures and safeguards for the handling of hazardous substances; (d) the prohibition and restrictions on the handling of hazardous substances in different areas; (e) the prohibition and restriction on the location of industries and the carrying on process and operations in different areas; (f) the procedures and safeguards for the prevention of accidents which may cause environmental pollution and for providing for remedial measures for such accidents.
Section 7	**Persons carrying on industry operation, etc., not to allow emission or discharge of environmental pollutants in excess of the standards.-** No person carrying on any industry, operation or process shall discharge or emit or permit to be discharged or emitted any environmental pollutants in excess of such standards as may be prescribed.
Section 8	**Persons handling hazardous substances to comply with procedural safeguards.-** No person shall handle or cause to be handled any hazardous substance except in accordance with such procedure and after complying with such safeguards as may be prescribed.
Section 9	**Furnishing of information to authorities and agencies in certain cases.-**
Section 10	**Powers of entry and inspection.-** (1) Subject to the provisions of this section, any person empowered by the Central Government in this behalf shall have a right to enter, at all reasonable times with such assistance as he considers necessary, any place- (a) for the purpose of performing any of the functions of the Central Government entrusted to him; (b) for the purpose of determining whether and if so in what manner, any such functions are to be performed or whether any provisions of this Act or the rules made thereunder or any notice, order, direction or authorization served, made, given or granted under this Act is being or has been complied with; (c) for the purpose of examining and testing any equipment, industrial plant, record, register, document or any other material object or for conducting a search of any building in which he has reason to believe that an offence under this Act or the rules made thereunder has been or is being or is about to be committed and for seizing any such equipment, industrial plant, record, register, document or other material object if he has reason to believe that it may furnish evidence of the commission of an offence punishable under this Act or the rules made thereunder or that

	such seizure is necessary to prevent to mitigate environmental pollution. (2) Every person carrying on any industry, operation or process of handling any hazardous substances shall be bound to render all assistance to the person empowered by the Central Government under sub-section (1) for carrying out the functions under that sub-section and if he fails to do so without any reasonable cause or excuse, he shall be guilty of an offence under this Act. (3) If any person willfully delays or obstructs any persons empowered by the Central Government under sub-section (1) in the performance of his functions, he shall be guilty of an offence under this Act.
Section 11	**Power to take sample and procedure to be followed in connection therewith.-** (1) The Central Government or any officer empowered by it in this behalf, shall have power to take, for the purpose of analysis, samples of air, water, soil or other substance from any factory, premises or other place in such manner as may be prescribed
Section 12	**Environmental laboratories.-** (1) The Central Government may, by notification in the Official Gazette,-- (a) establish one or more environmental laboratories (b) recognize one or more laboratories or institutes as environmental laboratories to carry out the functions entrusted to an environmental laboratory under this Act.
Section 13	**Government analysts.-**
Section 14	**Reports of Government analysts.-**
Section 15	**Penalty for contravention of the provisions of the Act and the rules, orders and directions.-** (1) Whoever fails to comply with or contravenes any of the provisions of this Act, or the rules made or orders or directions issued thereunder, shall, in respect of each such failure or contravention, be punishable with imprisonment for a term which may extend to five years with fine which may extend to one lakh rupees, or with both, and in case the failure or contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention. (2) If the failure or contravention referred to in sub-section (1) continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which may extend to seven years.
Section 16	**Offences by companies.-**
Section 17	**Offences by government departments.-**

Section 18	Protection of action taken in good faith
Section 19	Cognizance of offences
Section 20	Information, reports or returns
Section 21	Members, officers and employees of the authority constituted under section 3 to be public servants
Section 22	Bar of jurisdiction
Section 23	**Powers to delegate.-** Without prejudice to the provisions of sub-section (3) of section 3, the Central Government may, by notification in the Official gazette, delegate, subject to such conditions and limitations as may be specified in the notifications, such of its powers and functions under this Act [except the powers to constitute an authority under sub-section (3) of section (3) and to make rules under section 25] as it may deem necessary or expedient, to any officer, State Government or other authority.
Section 24	Effect of other laws
Section 25	Power to make rules
Section 26	Rules made under this Act to be laid before parliament

5.2 THE ENVIRONMENT (PROTECTION) RULES, 1986 (MoEF Notification S.O. 844(E) dated 19.11.1986) (Source: CPCB PCLS/02/2010 Sixth Edition)

Salient Features

Rule 3	**Standards for emission or discharge or environmental pollutants.-** (1) For the purpose of protecting and improving the quality of the environment and preventing and abating environmental pollution, the standards for emission or discharge of environmental pollutants from the industries, operations or processes shall be as specified in Schedule I to IV (2) Notwithstanding anything contained in sub-rule (1), the Central Board or a State Board may specify more stringent standards from those provided in Schedule I to IV in respect of any specific industry, operation or process depending upon the quality of the recipient system and after recording reasons therefore in writing.
Rule 4	**Directions.-** (1) Any direction issued under section 5 of the Environment (Protection) Act, 1986 shall be in writing. (2). The direction shall specify the nature of action to be taken and the time within which it shall be complied with by the person, officer or the authority to whom such direction is given.
Rule 5	Prohibition and restriction on the location of industries and the carrying on processes and operations in different areas.
Rule 6	Procedure for taking samples
Rule 12	Furnishing of information to authorities and agencies in certain cases
Rule 13	Prohibition and restriction on the handling of hazardous substances in different areas.

Rule 14	**Submission of environmental Statement.-** Every person carrying on an industry, operation or process requiring consent under section 25 of the Water (P&CP) Act, 1974 (6 of 1974) or under section 21 of the Air (P&CP) Act, 1981 (14 of 1981) or both or authorization under the Hazardous Waste (Management & Handling) Rules, 1989 issued under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an environmental statement for the financial year ending the 31st March in Form V to the concerned State Pollution Control Board on or before the thirtieth day of September every year, beginning 1993.

5.3 STANDARD PRESCRIBED UNDER ENVIRONMENT (PROTECTION) RULES, 1986

5.3.1 Emission Standards for New Generator Sets (Upto 19 Kilowatt) Run on Petrol and Kerosene with implantation Schedule (Source: CPCB PCLS/02/2010 Sixth Edition)

A. From June 1, 2000

Class	Displacement (CC)	CO(g/kw-hr)		HC+NO_x(g/kw-hr)	
		2-stroke engine	4-stroke engine	2-stroke engine	4-stroke engine
1.	≤65	603	623	166	65
2.	>65≤99	-	623	-	36
3.	>99≤225	-	623	-	19.3
4.	>225	-	623	-	16.1

B. From June 1, 2001

Class	Displacement (CC)	CO(g/kw-hr)	HC+NO_x(g/kw-hr)
1.	≤65	519	54
2.	>65≤99	519	30
3.	>99≤225	519	16.1
4.	>225	519	13.4

5.3.2 Emission Limits for New Diesel Engines (Up to 800 KW) for Generator Sets (Gensets) Applications (Source: CPCB PCLS/02/2010 Sixth Edition)

Capacity of diesel engines	Date of implementation	Emission Limits (g/kw-hr) for				Smoke Limit (light absorption coefficient, m^{-1}) (at full load)	Test Cycle	
		NO_x	HC	CO	PM		Torque %	Weighting Factor
Upto 19 kW	1.7.2005	9.2	1.3	3.5	0.3	0.7	100	0.05
							75	0.25
>19kW upto 176 kW	1.1.2004	9.2	1.3	5.0	0.5	0.7	50	0.30
	1.7.2004	9.2	1.3	3.5	0.3	0.7	25	0.30
>176 kW upto 800 kW	1.11.2004	9.2	1.3	3.5	0.3	0.7	10	0.10

5.3.3 Emission Standards for Diesel Engines (Engine Rating more than 0.8 MW (800 KW) for Power Plant, Generator set applications and other requirements (Source: CPCB PCLS/02/2010 Sixth Edition)

<table>
<tr><td colspan="2" rowspan="2">Parameter</td><td rowspan="2">Area Category</td><td rowspan="2">Total engine rating of the plant (includes existing as well as new generator sets)</td><td colspan="3">Generator sets commissioning date</td></tr>
<tr><td>Before 1.7.2003</td><td>Between 1.7.2003 and 1.7.2005</td><td>On or after 1.7.2005</td></tr>
<tr><td colspan="2" rowspan="4">NO_x (as NO_2) (At 15% O_2), dry basis, in ppmv</td><td>A</td><td>Up to 75 MW</td><td rowspan="2">1100</td><td rowspan="2">970</td><td rowspan="2">710</td></tr>
<tr><td>B</td><td>Up to 150 MW</td></tr>
<tr><td>A</td><td>More than 75 MW</td><td rowspan="2">1100</td><td rowspan="2">710</td><td rowspan="2">360</td></tr>
<tr><td>B</td><td>More than 150 MW</td></tr>
<tr><td colspan="2">NMHC (as C) (at 15% O_2), mg/Nm^3</td><td>Both A and B</td><td></td><td>150</td><td colspan="2">100</td></tr>
<tr><td rowspan="2">PM (at 15% O_2), mg/Nm^3</td><td>Diesel Fuels- HSD & LDO</td><td>Both A and B</td><td></td><td>75</td><td colspan="2">75</td></tr>
<tr><td>Furnace Oils- LSHS & FO</td><td>Both A and B</td><td></td><td>150</td><td colspan="2">100</td></tr>
<tr><td colspan="2">CO (at 15% O_2), mg/Nm^3</td><td>Both A and B</td><td></td><td>150</td><td colspan="2">150</td></tr>
<tr><td colspan="2" rowspan="2">Sulphur content in fuel</td><td>A</td><td></td><td colspan="3">< 2%</td></tr>
<tr><td>B</td><td></td><td colspan="3">< 4%</td></tr>
<tr><td colspan="2">Fuel specification</td><td>For A only</td><td>Up to 5 MW</td><td colspan="3">Only Diesel Fuels (HSD, LDO) shall be used</td></tr>
<tr><td colspan="2">Stack height (for generator sets commissioned after 1.7.2003)</td><td colspan="5">Stack height shall be maximum of the following, in metre:
(i). 14 $Q^{0.3}$, Q= Total SO_2 emission from the plant in kg/hr.
(ii). Minimum 6m above the building where generator set is installed.
(iii) 30 m.</td></tr>
</table>

Note : NHMC : Non Methane Hydrocarbon.

Category A:	Areas within the municipal limits of towns/cities having population more than 10 lakhs and also up to 5 km beyond the municipal limits of such towns/cities.
Category B:	Areas not covered by Category A

Continuous monitoring of Oxides of Nitrogen shall be done by the plants whose total engine capacity is more than 50 MW. However, minimum once in six month monitoring for other parameters shall be adopted by the plants.

5.3.4 Noise Limit for Generator Sets run with Petrol or Kerosene (Source: CPCB PCLS/02/2010 Sixth Edition)

	Noise Limit from	
	September 1, 2002	September 1, 2003
Sound Power level L_{wa}	90 dBA	86 dBA

5.3.5 Noise Limit for Generator Sets run with Diesel (Source: CPCB PCLS/02/2010 Sixth Edition)

1. Noise Limit for diesel generator sets (up to 1000 KVA) manufactured on or after the 1st January, 2005: 75 dB(A) at 1 metre from the enclosure surface.

5.3.6 Emission standards for Boiler (Small) - Particulate matters (Source: CPCB PCLS/02/2010 Sixth Edition)

Steam generation capacity (ton/hour)	Particulate matters emission (mg/NM^3)
Less than 2	1200*
2 to less than 10	800*
10 to less than 15	600*
15 and above	150**

* to meet the respective standards, cyclone/multicyclone is recommended as control equipment with the boiler.

** to meet the standards, bag filter/ESP is recommended as control equipment with the boiler.

Note:

(i) 12% of CO_2 correction shall be the reference value for particulate matter emission standards for all categories of boilers.

(ii) Stack Height for small Boilers.

For the small boilers using coal or liquid fuels, the required stack height with the boiler shall be calculated by using the formula,

$H=14Q^{0.3}$, Where H – Total stack height in metres from the ground level, $Q=SO_2$ emission rate in kg/hr.

In no case the stack height shall be less than 11 metres. Where providing tall stacks are not feasible using above formula the limit of 400 mg/Nm^3 for SO_2 emission shall be met by providing necessary control equipment with a minimum stack height of 11 metres.

5.3.7 Emission Standards for Bagasse-Fired Boilers (Source: CPCB PCLS/02/2010 Sixth Edition)

Source	Standards
(a) Step Grade – Particulate Matter	250 mg/Nm^3
(b) Horse shoe/pulsating grate – Particulate Matter	500 mg/Nm^3 (12% CO_2)
(c) Spreader Stroker – Particulate Matter	800 mg/Nm^3(12% CO_2)

Note: In the case of horse shoe and spreader stroker boilers, if more than one boiler is attached to a single stack, the standard shall be fixed based on added capacity of all the boilers connected with the stack.

5.3.8 Stack Height / Limit for Thermal Power Plants in metres (Source: CPCB PCLS/02/2010 Sixth Edition)

Power Generation Capacity	**Stack Height in metres**
500 MW and above	275
200 MW / 210 MW and above to less than 500 MW	220
Less than 200 MW/210 MW	$H=14Q^{0.3}$ where Q is emission rate of SO_2 in kg/hr and H Stack height in metres.
Steam generation capacity	
Less than 2 ton/hr	$^1/_2$ times the neighbouring building height or 9 metres (whichever is more)
More than 2 ton/hr to 5 ton/hr	12
More than 5 ton/hr to 10 ton/hr	15
More than 10 ton/hr	18
More than 15 ton/hr to 20 ton/hr	21
More than 20 to/hr to 25 ton/hr	24
More than 25 ton/hr to 30 ton/hr	27
More than 30 ton/hr	30 or using formula $H=14Q^{0.3}$ (whichever is more) Q is emission rate of SO_2 in kg/hr and H is Stack height in metres.

5.3.9 Emission Standards for Thermal Power Plants (Source: CPCB PCLS/02/2010 Sixth Edition)

Power Generation Capacity	**Particulate Matter – Standards**
210 MW or more	150 mg/Nm^3
Less than 210 MW	350 mg/Nm^3

Note:

Depending upon the requirement of local situation, such as protected area, the State Pollution Control Board and other implementation agencies under the Environment (Protection) Act, 1986 may prescribed a limit of 150 mg/Nm^3, irrespective of generation capacity of the plant.

5.3.10 Temperature Limit For Discharge Of Condenser Cooling Water From Thermal Power Plants (Source: CPCB PCLS/02/2010 Sixth Edition)

A. New Thermal Power Plants commissioned after June 1, 1999.
New thermal power plants, which will be using water from river/ lakes/reservoirs shall install cooling towers-irrespective location and capacity. Thermal power plants which will use sea water for cooling purposes, the condition below will apply,

B. New projects in coastal areas using sea water.- The Thermal power plants using sea water should adopt suitable system to reduce water temperature at the final discharge point so that the resultant rise in the temperature of receiving water does not exceed 7°C over and above the ambient temperature of the receiving water bodies.

C. Existing thermal power plants.- Rise in temperature of condenser cooling water

from inlet to the outlet of condenser shall not be more than 10°C.

D. Guidelines for discharge point

1. The discharge point shall preferably be located at the bottom of the water body at mid-stream for proper dispersion of thermal discharge.
2. In case of discharge of cooling water into sea, proper marine outfall shall be designed to achieve the prescribed standards. The point of discharge may be selected in consultation with concerned State Authorities / NOI.
3. No cooling water discharge shall be permitted in estuaries or near ecologically sensitive areas such as mangroves, coral reefs / spawning and breeding grounds of aquatic flora and fauna.

5.3.11 Emission Standards for Gas / Naphtha Based Thermal Power Plants (Source: CPCB PCLS/02/2010 Sixth Edition)

(i) Limit for emission of NO_x

(a) For existing units – 150 ppm (v/v) at 15% excess oxygen

(b) For new units with effect from 1.6.1999.

Total generation of gas turbine	**Limit of Stack NO_x emission (v/v), at 15% excess oxygen**
(a). 400 MW and above	(i). 50 ppm for the units burning natural gas (ii). 100 ppm for the units burning naphtha
(b). Less than 400 MW but upto 100 MW	(i). 75 ppm for the units burning natural gas (ii). 100 ppm for the units burning naphtha
(c) Less than 100 MW	100 ppm for units burning natural gas or naphtha as fuel
(d) For the plants burning gas in a conventional boiler	100 ppm

Note: Stack height in H metre should be calculated using the formula $H=14Q^{0.3}$, where Q is the emission rate of SO_2 in kg/hr, subject to minimum of 30 metres.

5.3.12 Emission Standards for Iron & Steel (Integrated Plant) (Source: CPCB PCLS/02/2010 Sixth Edition)

Source	**Standards**
Sintering Plant - Particulate Matter	150 mg/Nm^3
Steel making – during normal operations -Particulate Matter	150 mg/Nm^3
Steel making – during oxygen lancing - Particulate Matter	400 mg/Nm^3
Rolling Mill - Particulate Matter	150 mg/Nm^3
Carbon monoxide from coke oven	3 kg/tonne of coke produced

5.3.13 Emission Standards for Copper, Lead and Zinc Smelting Units (Source: CPCB PCLS/02/2010 Sixth Edition)

Source	**Standards**
Concentrator – Particulate Matter	150 mg/Nm^3
Emission of Oxides of Sulphur in Smelter & converter	Off-gases must be utilized for sulphuric acid manufacture. The limits of sulphur dioxide emission from stack shall not exceed 4 kg/tonne of concentrated (100%) acid produced.

5.3.14 Emission Standards for Nitric Acid Plant (Source: CPCB PCLS/02/2010 Sixth Edition)

Emission of Oxides of Nitrogen	3 Kg of oxides of nitrogen per tonne of weak acid (before concentration) produced

5.3.15 Emission Standards for Sulphuric Acid Plant –(Source: CPCB PCLS/02/2010 Sixth Edition)

Parameter	**Plant Capacity for 100% concentration of acid produced (tones/day)**	**Existing unit**	**New Unit**
Sulphur dioxide (SO_2)	Up to 300	1370 mg/Nm^3	1250 mg/Nm^3
	Above 300	1250 mg/Nm^3	950 mg/Nm^3
Acid Mist / Sulphur Trioxide	Up to 300	90 mg/Nm^3	70 mg/Nm^3
	Above 300	70 mg/Nm^3	50 mg/Nm^3

Note:

(i). Scrubbing units shall have on-line pH meters with auto recording facility

(ii). The height of the stack emitting sulphur-dioxide or acid mist shall be of minimum of 30 metre or as per the formula $H=14Q^{0.3}$ (whichever is more). Where 'H' is the height of the stack in metre; and 'Q' is the maximum quantity of SO_2 expected to be emitted through the stack at 110% rated capacity of the pants and calculated as per the norms of gaseous emission.

(iii). Plants having more than one stream or unit of sulphuric acid at one location, the combined capacity of all the streams and units shall be taken into consideration for determining the stack height and applicability of emission standards.

(iv). Plants having separate stack for gaseous emission for the scrubbing unit, the height of this stack shall be equal to main stack.

5.3.16 Emission Standards for Asbestos Manufacturing Units (Including all process involving the use of Asbestos) (Source: CPCB PCLS/02/2010 Sixth Edition)

Parameter	**Standards**
Pure Asbestos material	0.5 fibre/cc for one year from the date of notification 0.2 fibre/cc after one year from the date of notification
Total Dust	2 mg/m^3 (normal)

5.3.17 Emission Standards for Cement Plants (Source: CPCB PCLS/02/2010 Sixth Edition)

Plant Capacity	**Particulate Matter - Not to exceed**
A. Total Dust	
(i) 200 tonnes/day (all sections)	400 mg/Nm^3
(ii) Greater than 200 tonnes/day	250 mg/Nm^3
B. Emissions	
(i) For Cement Plants, including Grinding Units, located in critically polluted or urban areas with a population of one lakh and above (including 5 Km distance outside urban boundary): Particulate Matter	100 mg/Nm^3
(ii) New Cement Kilns, including Grinding Units to be installed after the date of notification Particulate Matter	50 mg/Nm^3

5.3.18 Emission Standards for Stone Crushing Unit (Source: CPCB PCLS/02/2010 Sixth Edition)

Parameter	**Standards**
Suspended Particulate Matter	The suspended particulate matter measured between 3 metres and 10 metres from any process equipment of a stone crushing unit shall not exceed 600 micrograms per cubic metre.

5.3.19 Emission Standards for Foundries (Source: CPCB PCLS/02/2010 Sixth Edition)

(a) Cupola Capacity (Melting Rate)	Concentration
Less than 3 mt/hr – Particulate Matter	450 mg/Nm^3
3 mt/hr and above – Particulate Matter	150 mg/Nm^3
(b) Arc Furnaces All sizes – Particulate Matter	150 mg/Nm^3
(C) Induction Furnace All sizes – Particulate Matter	150 mg/Nm^3

Note:

(i). It is essential that stack is constructed over the cupola beyond the charging door and emissions are directed through the stack which should be at least six times the diameter of cupola.

(ii) . In respect of Arc Furnaces and Induction Furnaces provision has to be made for collecting the fumes before discharging the emission through the stack.

5.3.20 Emission Standard for SO_2 from Cupola Furnace (Source: CPCB PCLS/02/2010 Sixth Edition)

Parameter	**Standards**
Sulphur Dioxide (SO_2) emission	300 mg/Nm^3 at 12% CO_2 correction

Note: To achieve the standard, foundries may install scrubber followed by a stack six times the diameter of the Cupola beyond the charging door. In case due to some technical reasons, installation of scrubber is not possible, then value of SO_2 to the ambient air has to be effected through the stack height.

5.3.21 Emission Standards for Aluminum Plants (Source: CPCB PCLS/02/2010 Sixth Edition)

Source	Standards
(a) Aluminium Plant (i). Raw Material Handling Primary and Secondary Crusher – Particulate Matter	 150 mg/Nm^3
(ii). Precipitation Area – Calcination – Particulate Matter Carbon Monoxide Stack Height	250 mg/Nm^3 1% max. $H=14Q^{0.3}$, where Q is emission rate of SO_2 in kg/hr and H-Stack height in metres.
(b) Smelter Plant (i). Green Anode Shop – Particulate Matter	 150 mg/Nm^3
(ii). Anode Bake Oven – Particulate Matter - Total Fluoride (F)	50 mg/Nm^3 0.3kg/MT of Aluminium
(iii). Pot room – Particulate Matter - Total Fluoride for Soderberg Technology - Total Fluoride for Pre-baked Technology	150 mg/Nm^3 2.8 kg/Ton by 31st Dec 2006 0.8 kg/t by 31st Dec 2006
(c) Standards for forage Fluoride (i). Twelve consecutive months average (ii). Two consecutive months average (iii) One month average	 40 ppm 60 ppm 80 ppm

5.3.22 Emission Standards for Pesticide Manufacturing and Formulation Industry (Source: CPCB PCLS/02/2010 Sixth Edition)

Parameter	Standards
Hcl	20 mg/Nm^3
Cl_2	5 mg/Nm^3
H_2S	5 mg/Nm^3
P_2O_5 (as H_3PO_4)	10 mg/Nm^3
NH_3	30 mg/Nm^3
Particulate matter with pesticides compounds	20 mg/Nm^3
CH_3Cl	20 mg/Nm^3
HBr	5 mg/Nm^3

5.3.23 Emission Standards for Glass Industry (Source: CPCB /PCLS /02/ 2010 Sixth Edition)

A. Sodalime & Borosilicate and other special Glass (other than Lead)

Source	Standards
(a) Furnace : Capacity (i). Upto a product draw capacity of 60MT/Day – Particulate Matter	 2.0 kg/hr.
(ii). Product draw capacity more than 6 MT/Day – Particulate Matter	0.8 kg/MT of product drawn

(iii). For all capacities – Stack Height	$H=14Q^{0.3}$, where Q is the emission rate of SO_2 in kg/hr & H is stack height in metres.
For all capacities - Total Fluorides	5 mg/Nm^3
For all capacities - NO_x	Use of low NO_x burners in new plants

(b) Implementation of the following measures for fugitive emission control from other sections:
(i). Raw materials should be transported in leak proof containers.
(ii). Cullet preparation should be dust free using water spraying.
(iii). Batch preparation should be covered.

B. Lead Glass

Source	Standards
(a) Furnaces: All capacities	
Particulate Matter	50 mg/Nm^3
Lead	20 mg/Nm^3

(b). Implementation of the following measures for fugitive emission control from other sections:

(i). Batch mixing, proportioning section and transfer points should be covered and it should be connected to control equipments to meet the following standards: Particulate Matter – 50 mg/Nm^3, Lead – 20 mg/Nm^3.

(ii). Minimum Stack height should be 30 metres in lead glass units.

(c) Pot Furnace at Firozabad : Furnace Particulate Matter – 1200 mg/Nm^3.

Note: Depending upon the local environmental conditions, State/Central Pollution Control Board can prescribe more stringent standards than those prescribed above.

5.3.24 Emission Standards for Lime Kiln (Source: CPCB PCLS/02/2010 Sixth Edition)

Source	Standards
Capacity: Upto 5 T/day – Stack Height	A hood should be provided with a stack of 30 metre height from ground level (including kiln height).
Above 5 T/day – Stack Height	$H=14Q^{0.3}$, where Q is the emission rate of SO_2 in kg/hr & H is stack height in metres.
More than 5 T/day and upto 40T/day – Particulate Matter	500 mg/Nm^3
Above 40 T/day – Particulate Matter	150 mg/Nm^3

5.3.25 Emission Standards for Battery Manufacturing Industry (Source: CPCB PCLS/02/2010 Sixth Edition)

(i) Lead Acid Battery Manufacturing Industries

Source	Pollutant	Concentration based Standards (mg/Nm^3)
Grid casting	Lead	10
	Particulate matter	25
Oxide manufacturing	Lead	10
	Particulate matter	25
Past mixing	Lead	10
	Particulate matter	25
Assembling	Lead	10
	Particulate matter	25
PVC Section	Particulate matter	150

(ii) Dry Cell Manufacturing Industry

Pollutant	**Concentration based Standards (mg/Nm^3)**
Particulate matter	50
Manganese as Mn	5

Note:

(a) To comply with the respective standards, all the emissions from above mentioned sources shall be routed through stack connected with hood and fan. In addition to above, installation of control equipments viz. Bag filter / ventury scrubber, is also recommended

(b) The minimum stack height shall be 30 metres

(iii) Secondary Lead Smelters

Pollutant	**Concentration based standards**
Lead as Pb	10 mg/Nm^3
Particulate matter	50 mg/Nm^3
Minimum Stack height	30 m

5.3.26 Emission Standards for Common Hazardous Waste Incinerators (Source: CPCB PCLS/02/2010 Sixth Edition)

Parameter	**Limiting concentration in mg/Nm^3 unless stated**	**Sampling Duration in (minutes) unless stated**
Particulate matter	50	30
HCl	50	30
SO_2	200	30
CO	100	30
	50	24 hours
Total Organic Carbon	20	30
HF	4	30
NO_x (NO and NO_2, expressed as NO_2)	400	30
Total dioxins and furans	0.1 ngETQ/Nm^3	8 hours

Cd + Th + their compounds	0.05	2 hours
Hg and its compounds	0.05	2 hours
Sb + As + Pb + Co + Cr + Cu + Mn + Ni + V + their compounds	0.50	2 hours

Note:

(i). All monitored values shall be corrected to 11 % oxygen on dry basis.

(ii). The CO_2 concentration in tail gas shall not be less than 7%.

(iii). In case, halogenated organic waste is less than 1% by weight in input waste, all the facilities in twin chamber incinerators shall be designed to achieve a minimum temperature of 950°C in secondary combustion chamber and with a gas residence time in secondary combustion chamber not less than 2 (two) seconds.

(iv). In case halogenated organic waste is more than 1% by weight in input waste, waste shall be incinerated only in twin chamber incinerators and all the facilities shall be designed to achieve a minimum temperature of 1100°C in secondary combustion chamber with a gas residence time in secondly combustion chamber not less than 2 (two seconds).

(v). Incineration plants shall be operated (combustion chambers) with such temperature, retention time and turbulence, as to achieve Total Organic Carbon (TOC) content in the slag and bottom ashes less than 3%, or their loss on ignition is less than 5% of the dry weight.

5.3.27 Load/Mass Based Emission Standards (Source: CPCB PCLS/02/2010 Sixth Edition)

S. No.	**Industry**	**Parameter**	**Standard**	
1.	Fertilizer (Urea)			
	Commissioned Prior to 1.1.82	Particulate Matter	2 kg/tonne of product	
	Commissioned after 1.1.82	Particulate Matter	0.5 kg/tonne of product	
2.	Copper, Lead and Zinc smelter / Converter	Sulphur dioxide	4 kg/tonne of concentrated (100%) acid produced	
3.	Nitric Acid	Oxides of Nitrogen	3 kg/tonne of weak acid (before concentration) produced	
4.	Sulphuric Acid Plant		Plant Capacity for 100%	
			Existing unit	New unit
	Upto 300 TPD acid	Sulphur dioxide (SO_2)	2.5 kg/t	2.0 kg/t
	Above 300 TPD acid	Sulphur dioxide (SO_2)	2.0 kg/t	1.5 kg/t
5.	Coke Oven	Carbon Monoxide	3 kg/tonne of coke produced	

6.	Petroleum Oil Refinery (Sulphur Recovery)		Existing SRU	New SRU
	Installed capacity of SRU – Above 20TPD	Sulphur dioxide (SO_2)	26 kg/t	10 kg/t
	Installed capacity of SRU 5 TPD to 20 TPD	Sulphur dioxide (SO_2)	80 kg/t	40 kg/t
	Installed capacity of SRU upto 5 TPD	Sulphur dioxide (SO_2)	120 kg/t	80 kg/t
7.	Aluminium Plants			
	(i). Anode Bake Oven	Total Fluoride	0.3 kg/MT of Aluminium	
	(ii) Pot room			
	(a) Vertical Stud Soderberg	Total Fluoride	4.7 kg/MT of Aluminium	
	(b) Horizontal Stud Soderberg	Total Fluoride	6 kg/MT of Aluminium	
	(c) Pre Backed Side Work	Total Fluoride	2.5 kg/MT of Aluminium	
	(d) Pre Backed Centre Work	Total Fluoride	1.0 kg/MT of Aluminium	
8.	Glass Industry (a) Furnace Capacity			
	(i) Upto the product draw capacity of 60 MTD	Particulate matter	2 kg/hr	
	(i) Product draw capacity of more than 60 MTD	Particulate matter	0.8 kg/MT of product drawn	

5.3.28 Noise Standards for Fire-Crackers (Source: CPCB PCLS/02/2010 Sixth Edition)

A (i) The manufacture, sale of fire-crackers generating noise level exceeding 125 dB(A1) of 145 dB(C) at 4 metres distance from the point of bursting shall be prohibited.

(ii) For individual fire-cracker constituting the series (joined fire-crackers), the above mentioned limit be reduced by $5\log_{10}$ (N) dB, where N = number of crackers joined together.

B The broad requirement for measurement of noise from fire-crackers shall be-

(i) The measurements shall be made on hard concrete surface of minimum 5 metre diameter or equivalent.

(ii) The measurements shall be made in free field conditions i.e., there shall not be any reflecting surface upto 15 metres distance from the point of bursting.

(iii) The measurement shall be made with an approved sound level metre.

C The Department of Explosive shall ensure implementation of these standards.

Note: dB(A1): A-weighted impulse sound pressure level in decibel.
$dB(C)_{pk}$: C – weighted peak sound pressure level in decibel.

5.4 WASTE WATER GENERATION STANDARDS (Source: CPCB/PCLS / 02/2010 Sixth Edition)

S.No.	Industry		Quantum
1.	Integrated Iron & Steel		16 m^3/tonne of finished steel
2.	Sugar		0.4 m^3/tonne of cane crushed
3.	Pulp & Paper Industries		
	(a)	Larger Pulp & Paper	
		(i) Pulp & Paper	175 m^3/tonne of paper produced
		(ii) Viscose Staple Fibre	150 m^3/tonne of product
		(iii) Viscose Filament Yarn	500 m^3/tonne of product
	(b)	Small Pulp & Paper	
		(i) Agro residue based	150 m^3/tonne of paper produced
		(ii) Waste paper based	50 m^3/tonne of paper produced
4.	Fermentation Industries		
	(a)	Maltry	3.5 m^3/tonne of grain produced
	(b)	Brewery	0.25 m^3/KL of beer produced
	(c)	Distillery	12 m^3/KL of alcohol produced
5.	Caustic Soda		
	(a)	Membrane Cell process	1 m^3/tonne of caustic soda produced excluding cooling tower blow down
	(b)	Mercury cell process	4 m^3/tonne of caustic soda produced (mercury bearing) 10% blow down permitted for cooling tower
6.	Textile Industries: Man Made Fibre		
	(i)	Nylon & Polyster	120 m^3/tonne of fibre produced
	(ii)	Viscose rayon	150 m^3/tonne of product
7.	Tanneries		28 m^3/tonne of raw hide
8.	Starch, Glucose and related products		8 m^3/tonne of maize crushed
9.	Dairy		3 m^3/KL of milk
10.	Natural rubber processing industry		4 m^3/tonne of rubber
11.	Fertilizer		
	(a)	Straight nitrogenous fertilizer	5 m^3/tonne of urea or equivalent produced
	(b)	Straight phosphatic fertilizer (SSP & TSP) excluding manufacture of any acid	0.5 m^3/tonne of SSP/TSP
	(c)	Complex fertilizer	Standards of nitrogenous and phosphoric fertilizers are applicable depending on the primary product

5.5 ENVIRONMENTAL STATEMENT

FORM V

(See rule 14 of Environment (Protection) Rules, 1986)

Environmental statement for the financial year ending the 31st March .....

PART - A

(i) Name and Address of the owner/occupier of the industry operation or process

(ii) Industry category Primary – (STC Code) Secondary – (SIC Code)

(iii) Production capacity – Units .....

(iv) Year of Establishment

(v) Date of last environmental statement submitted

PART – B

Water and Raw Material Consumption

(i) Water consumption m^3/day

Process .....

Cooling .....

Domestic .....

Name of Products	**Process water consumption per unit of product output**	
	During the previous financial year	**During the current financial year**
	(1)	(2)
(1)		
(2)		
(3)		

(ii) Raw material consumption

***Name of raw materials**	**Name of Products**	**Consumption of raw material per unit of output**	
		During the previous financial year	**During the current financial year**

* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART – C

Pollution discharged to environment/unit of output

(Parameter as specified in the consent issued)

(1) Pollutants	**Quality of Pollutants discharged (mass/day)**	**Concentrations of pollutants discharges (Mass/volume)**	**Percentage of variation from prescribed standards with reasons**
(a) Water			
(b) Air			

PART – D

Hazardous Wastes

(As specified under Hazardous Wastes (Management, Handling and Transboundry Movement) Rules, 2008)

Hazardous Wastes	Total Quantity (Kg.)	
	During the previous financial year	During the current financial year
(a) From Process		
(b) From pollution control facilities		

PART – E

Solid Wastes

Solid Wastes	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process		
(b) From pollution control facilities		
(c) (1) Quantity recycled or re-utilized within the unit (2) Sold (3) Disposed		

PART – F

Please specify the characteristics (in terms of consumption of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production

PART – H

Additional measures/investment proposal for environmental protection including abetment of pollution prevention of pollution

PART – I

Any other particulars for improving the quality of the environment

5.6 THE BIO-MEDICAL WASTE (MANAGEMENT AND HANDLING) RULES, 1998 (MoEF Notification S.O. 630 (E) Dated 20.7.1998. (Source: CPCB PCLS/02/2010 Sixth Edition)

Salient Features

Rule 2	**Application.-** These rules apply to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form.
Rule 3	**Definitions.-** (5) "Bio-medical waste" means any waste, which is generated during the diagnosis, treatment or immunization of human beings or animals or in research activities pertaining thereto or in the production or testing of biologicals, and including categories mentioned in Schedule I; (7) "Bio-medical waste treatment facility" means any facility wherein treatment. disposal of bio-medical waste or processes incidental to such treatment or disposal is carried out and includes common treatment facilities; (7) (a) : Form means Form appended in these rules (8) "Occupier" in relation to any institution generating bio-medical waste, which includes a hospital, nursing home, clinic dispensary, veterinary institution, animal house, pathological laboratory, blood bank by whatever name called, means a person who has control over that institution and/or its premises; (9) "Operator of a bio-medical waste facility" means a person who owns or controls or operates a facility for the collection, reception, storage, transport, treatment, disposal or any other form of handling of bio-medical waste;
Rule 4	**Duty of Occupier.-** It shall be the duty of every occupier of an institution generating bio-medical waste which includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood bank by whatever name called to take all steps to ensure that such waste is handled without any adverse effect to human health and the environment.
Rule 5	**Treatment and Disposal.-** (1) Bio-medical waste shall be treated and disposed of in accordance with Schedule I, and in compliance with the standards prescribed in Schedule V. (2) Every occupier, where required, shall set up in accordance with the time-schedule in Schedule VI, requisite bio-medical waste treatment facilities like incinerator, autoclave, microwave system for the treatment of waste, or, ensure requisite treatment of waste at a common waste treatment facility or any other waste treatment facility.
Rule 6	**Segregation, Packaging, Transportation and Storage.-** (1) Bio-medical waste shall not be mixed with other wastes.

	(2) Bio-medical waste shall be segregated into containers/bags at the point of generation in accordance with Schedule II prior to its storage, transportation, treatment and disposal. The containers shall be labeled according to Schedule III. (3) If a container is transported from the premises where bio-medical waste is generated to any waste treatment facility outside the premises, the container shall, apart from the label prescribed in Schedule III, also carry information prescribed in Schedule IV. (4) Notwithstanding anything contained in the Motor Vehicles Act, 1988, or rules thereunder, untreated biomedical waste shall be transported only in such vehicle as may be authorized for the purpose by the competent authority as specified by the government. (5) No untreated bio-medical waste shall be kept stored beyond a period of 48 hours: Provided that if for any reason it becomes necessary to store the waste beyond such period, the authorized person must take permission of the prescribed authority and take measures to ensure that the waste does not adversely affect human health and the environment. (6) The Municipal body of the area shall continue to pick up and transport segregated non bio-medical solid waste generated in hospitals and nursing homes, as well as duly treated bio-medical wastes for disposal at municipal dump site.
Rule 7	Prescribed Authority
Rule 8	**Authorization.-** (1) Every occupier of an institution generating, collecting, receiving, storing, transporting, treating, disposing and/or handling bio-medical waste in any other manner, except such occupier of clinics, dispensaries, pathological laboratories, blood banks providing treatment/service to less than 1000 (one thousand) patients per month, shall make an application in Form 1 to the prescribed authority for grant of authorisation. (2) Every operator of a bio-medical waste facility shall make an application in Form 1 to the prescribed authority for grant of authorisation. (3) Every application in Form 1 for grant of authorisation shall be accompanied by a fee as may be prescribed by the Government of the State or Union Territory.
Rule 9	Advisory Committee
Rule 9A	Monitoring of Implementation of the Rules in Armed Forces Health Care Establishments
Rule 10	Annual Report
Rule 11	Maintenance of Records
Rule 12	Accident Reporting
Rule 13	Appeal
Rule 14	Common Disposal / Incineration Sites

SCHEDULE I

(See Rule 5)

Categories of Bio-Medical Waste

Waste Category No.	**Waste Category [Type]**	**Treatment and Disposal [option+]**
Category No.1	Human Anatomical Waste (human tissues, organs, body parts)	Incineration@/deep burial*
Category No.2	Animal Waste (animal tissues, organs, body parts carcasses, bleeding parts, fluid, blood and experimental animals used in research, waste generated by veterinary hospitals, colleges, discharge from hospitals, animal houses)	Incineration@/deep burial*
Category No.3	Microbiology & Biotechnology Wastes (wastes from laboratory cultures, stocks or specimens of micro-organisms live or attenuated vaccines, human and animal cell culture used in research and infectious agents from research and industrial laboratories, wastes from production of biologicals, toxins, dishes and devices used for transfer of cultures).	Local autoclaving / micro-waving /incineration@
Category No.4	Waste sharps (needles, syringes, scalpels, blades, glass etc. that may cause puncture and cuts. This includes both used and unused sharps).	Disinfection (chemical treatment@@/auto claving / microwaving and multilation / shredding ##
Category No.5	Discarded medicines and Cytotoxic drugs (wastes comprising of outdated, contaminated and discarded medicines)	incineration@/destruction and drugs disposal in secured landfills
Category No.6	Soiled waste (Items contaminated with blood, and body fluids including cotton, dressings, soiled plaster casts., lines beddings, other material contaminated with blood)	incineration@ autoclaving / microwaving.
Category No.7	Solid Waste (wastes generated from disposable items other than the waste sharps such as tubings, catheters,	disinfection by chemical treatment@@ autoclaving / microwaving and mutilation/ shredding ##

	intravenous sets etc.)	
Category No.8	Liquid Waste (waste generated from laboratory and washing, cleaning, house-keeping and disinfecting activities).	disinfection by chemical treatment@@ and discharge into drains.
Category No.9	Incineration Ash (ash from incineration of any bio-medical waste)	disposal in municipal landfill
Category No.10	Chemical Waste (chemicals used in production of biologicals, chemicals used in disinfection as insecticides etc).	Chemical treatment@@ and discharge into drains for liquids and secured landfill for solids.

@@ Chemical treatment using at least 1% hypochlorite solution or any other equivalent chemical reagent. It must be ensured that chemical treatment ensures disinfection.

Mutilation/shredding must be such so as to prevent unauthorized reuse.

@ There will be no chemical pretreatment before incineration. Chlorinated plastics shall not be incinerated.

* Deep burial shall be an option available only in towns with population less than five lakhs and in rural areas.

+ Options given above are based on available technologies. Occupier/operator wishing to use other State-of-the-art technologies shall approach the Central Pollution Control Board to get the standards laid down to enable the prescribed authority to consider grant of authorisation.

SCHEDULE II

(See Rule 6)

Colour coding and type of container for disposal of bio-medical wastes

Colour Coding	Type of Container	Waste Category	Treatment options as per Schedule I
Yellow	Plastic bag	Cat.1, Cat.2, Cat.3, Cat.6	Incineration/deep burial
Red	Disinfected container/plastic bag	Cat.3, Cat.6, Cat.7	Autoclaving/Microwaving/ Chemical Treatment
Blue / White translucent	Plastic bag/puncture proof container	Cat.4, Cat.7	Autoclaving/Microwaving/ Chemical Treatment and destruction/Shredding.
Black	Plastic bag	Cat.5 and Cat.9 and Cat.10 (Solid)	Disposed in secured landfill

Notes:

1. Colour coding of waste categories with multiple treatment options as

defined in Schedule I, shall be selected depending on treatment option chosen, which shall be as specified in Schedule I.

2. Waste collection bags for waste types needing incineration shall not be made of chlorinated plastics.
3. Categories 8 and 10 (liquid) do not require containers/bags.
4. Category 3 if disinfected locally need not be put in containers/bags.

Schedule III Label for Bio-medical Waste Containers/Bags
Schedule IV Label for Transport of Bio-medical Waste Containers/Bags
Schedule V Standards for Treatment and Disposal of Bio-medical Wastes
Schedule VI Schedule for Waste Management Facilities like Incinerator / Autoclave / Microwave System

5.6.1 Processing Fee for authorization under BMW (M&H) Rules (Source: G.O. Ms. No. 202 E&F (ECII) Dept. dated 12.9.2000

Sl. No.	**Institutions/Facilities Generating, Collecting, Receiving, Storing, Transporting, Treating, Disposing, Handling Bio-medical Waste**	**Fee to be accompanied with application for authorization in Form-I**
1	Located within Municipal Corporation	Rs. 1500/- (Rupees one thousand five hundred only)
2	Located within Special Grade and Selection Grade Municipalities	Rs. 1000/- (Rupees one thousand only)
3	Located in other Municipalities	Rs. 750/- (Rupees seven hundred only)
4	Located in other areas	Rs. 500/- (Rupees five hundred only)

5.7 DELEGATION POWERS TO THE STATE GOVERNMENTS/STATE POLLUTION CONTROL BOARDS UNDER SECTION 5 OF THE ENVIRONMENT (PROTECTION) ACT, 1986 (Source: CPCB PCLS/02/2010 Sixth Edition)

5.7.1 Delegation Powers to the State Government under Environment (Protection) Act, 1986. MoEF Notification S.O. 152 (E) Dated 10.2.1988

In exercise of the powers conferred by Section 23 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government delegated the powers vested in it under Section 5 of the said Act to the State Governments (including Tamil Nadu State) subject to the conditions that the Central Government may revoke such delegation of powers in respect of all or any one or more of the State Governments or may itself invoke the provisions of Section 5 of the said Act, if in the opinion of the Central Government such a course of action is necessary in the public interests.

5.7.2 Delegation Powers to the Chairman, State Pollution Control Boards under Environment (Protection) Act, 1986 MoEF Notification .O.23 (E) Dated 8.1.1997 (Source: CPCB PCLS/02/2010 Sixth Edition)

In exercise of the powers conferred by Section 23 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government delegated the powers vested in it under Section 5 of the said Act to the Chairman, State Pollution Control Boards / Committees (including TNPCB) to issue directions to any industry or any local or other authority for the violations of the standards and rules relating to **Hazardous Wastes** notified under the Environment (Protection) Act, 1986, subject to the conditions that the Central Government may revoke such delegation of powers or may itself invoke the provisions of Section 5 of the said Act, if in the opinion of the Central Government such a course of action is necessary in the public interests.

MoEF Notification S.O. 327 (E) Dated 10.4.2001

In exercise of the powers conferred by Section 23 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government delegated the powers vested in it under Section 5 of the said Act to the Chairman, State Pollution Control Boards / Committees (including TNPCB) to issue directions to any industry or any local or other authority for the violations of the standards and rules relating to **Bio Medical Waste, Hazardous Chemicals, Industrial Solid Waste and Municipal Solid Waste including Plastic Waste** notified under the Environment (Protection) Act, 1986, subject to the conditions that the Central Government may revoke such delegation of powers or may itself invoke the provisions of Section 5 of the said Act, if in the opinion of the Central Government such a course of action is necessary in the public interests.

5.8 ENVIRONMENT IMPACT ASSESSMENT (EIA) NOTIFICATION, 2006

(Government of India Gazette Notification S.O. 1533 (E) dated 14.9.2006)

Salient Features

Requirements of prior Environmental Clearance (EC):- The following projects or activities shall require prior environmental clearance from the concerned regulatory authority, which shall hereinafter referred to be as the Central Government in the Ministry of Environment and Forests for matters falling under Category 'A' in the Schedule and at State level the State Environment Impact Assessment Authority (SEIAA) for matters falling under Category 'B' in the said Schedule, before any construction work, or preparation of land by the project management except for securing the land, is started on the project or activity:

(i) All new projects or activities listed in the Schedule to this notification;

(ii) Expansion and modernization of existing projects or activities listed in the Schedule to this notification with addition of capacity beyond the limits specified for the concerned sector, that is, projects or activities which cross the threshold limits given in the Schedule, after expansion or modernization;

(iii) Any change in product - mix in an existing manufacturing unit included in Schedule beyond the specified range.

Public Consultation: "Public Consultation" refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. All Category 'A' and Category B1 projects or activities shall undertake Public Consultation, except the following:-

(a) modernization of irrigation projects (item 1(c) (ii) of the Schedule).

(b) all projects or activities located within industrial estates or parks (item 7(c) of the Schedule) approved by the concerned authorities, and which are not disallowed in such approvals.

(c) expansion of Roads and Highways (item 7 (f) of the Schedule) which do not involve any further acquisition of land.

"(cc) maintenance dredging provided the dredging material shall be disposed within port limits

(d) All Building or Construction projects or Area Development projects (which do not contain any category 'A' projects and activities) and Townships (item 8(a) and 8(b) in the schedule to the notification)."

(e) all Category 'B2' projects and activities,

(f) all projects or activities concerning national defense and security or involving other strategic considerations as determined by the Central Government

Prior Environmental Clearance (EC) process for Expansion or Modernization or Change of product mix in existing projects:

All applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernization of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days,

who will decide on the due diligence necessary including preparation of EIA and public consultations and the application shall be appraised accordingly for grant of environmental clearance.

SCHEDULE

(See paragraph 2 and 7)

List of Projects or Activities Requiring Prior Environmental Clearance

Project or Activity		**Category with threshold limit**		**Conditions if any**
		A	**B**	
1. Mining, extraction of natural resources and power generation (for a specified production capacity)				
(1)	(2)	(3)	(4)	(5)
1 (a) **1(a)**	Mining of minerals	≥ 50 ha. of mining lease area in respect of non-coal mine lease. > 150 ha of mining lease area in respect of coal mine lease. Asbestos mining irrespective of mining area	<50 ha ≥ 5 ha .of mining lease area in respect of non-coal mine lease. ≤ 150 ha ≥ 5 ha of mining lease area in respect of coal mine lease.	General Condition shall apply Note Mineral prospecting is exempted
	(ii) Slurry pipelines (coal lignite and other ores) passing through national parks/sanctuaries/coral reefs, ecologically sensitive areas	All projects		
1(b)	Offshore and onshore oil and gas exploration, development & production	All projects		Note Seismic surveys which are part of Exploration Surveys are exempted provided the concession areas have got previous clearance for physical survey
1(c)	River Valley	(i) ≥ 50 MW	(i) < 50 MW ≥ 25	General Condition

	projects	hydroelectric power generation; (ii) ≥ 10,000 ha. of culturable command area	MW hydroelectric power generation; (ii) < 10,000 ha. of culturable command area	shall apply Note: Irrigation projects not involving submergence or inter-state domain shall be appraised by the SEIAA as category 'B' projects
1(d)	Thermal Power Plants	≥ 500 MW (coal/lignite/naphta & gas based); ≥ 50 MW (Pet coke, diesel and all other fuels including refinery residual oil waste except biomass) ≥20MW (based on biomass or non hazardous municipal solid waste as fuel)	< 500 MW (coal/lignite/naphtha & gas based); <50 MW ≥ 5MW (Pet coke, diesel and all other fuels including refinery residual oil waste except biomass): < 20MW >15MW (based on biomass or non hazardous municipal solid waste as fuel)	General Condition shall apply Note: (i) Power Plants up to 15 MW, based on biomass and using auxiliary fuel such as coal/lignite/petroleum products upto 15% are exempt. (ii) Power Plant up to 15 MW, based on non-hazardous municipal waste and using auxiliary fuel such as coal/lignite/petroleum products up to 15% are exempt. (iii) Power plants using waste heat boiler without any auxiliary fuel are exempt
1(e)	Nuclear power projects and processing of nuclear fuel	All projects	-	
2. Primary Processing				
2(a)	Coal washeries	≥ 1 million ton/annum throughput of coal	<1million ton/annum throughput of coal	General Condition shall apply (If located within mining area the proposal shall be appraised together

				with the mining proposal)
2 (b)	Mineral beneficiation	≥ 0.1million ton/annum mineral throughput	< 0.1million ton/annum mineral throughput	General Condition shall apply (Mining proposal with Mineral beneficiation shall be appraised together for grant of clearance)
3. Materials Production				
3 (a)	Metallurgical industries (ferrous & non ferrous**)**	a)Primary metallurgical industry All projects b) Sponge iron manufacturing ≥ 200TPD c)Secondary metallurgical processing industry All toxic and heavy metal producing units ≥ 20,000 tonnes /annum -	Sponge iron manufacturing <200TPD Secondary metallurgical processing industry i.)All toxic and heavy metal producing units <20,000 tonnes /annum ii.)All other non –toxic secondary metallurgical processing industries >5000 tonnes/annum	General Condition shall apply Note: (i) The recycling industrial units registered under the HSM Rule, are exempted. (ii) In case of secondary metallurgical processing industrial units, those projects involving operation of furnaces, only such as induction and electric arc furnace, submerged arc furnace, and cupola with capacity more than 30,000 tonnes per annum (TPA) would require environmental clearance (iii) Plant/units other than power plants (given against entry No.1(d) of the schedule), based on municipal solid waste (non-hazardous) are exempted.

3(b)	Cement plants	≥ 1.0 million tonnes/annum production capacity	<1.0 million tonnes/annum production capacity. All Stand alone grinding units	General Condition shall apply
4. Materials Processing				
4(a)	Petroleum refining industry	All projects	-	-
4(b)	Coke oven plants	≥2,50,000 tonnes/annum -	<2,50,000 & ≥25,000 tonnes/annum	General Conditions shall apply
4(c)	Asbestos milling and asbestos based products	All projects	-	-
4(d)	Chlor-alkali industry	≥300 TPD production capacity or a unit located out side the notified industrial area/ estate	(i) All projects irrespective of the size, if it is located in a notified industrial area/Estate. (ii) <300 tonnes per day (TPD) and located outside a notified industrial area/ estate	General as well as Specific Condition shall apply No new Mercury Cell based plants will be permitted and existing units converting to membrane cell technology are exempted from this Notification
4(e)	Soda ash Industry	All projects	-	-
4(f)	Leather/skin/ hide processing industry	New projects outside the industrial area or expansion of existing units out side the industrial area	All new or expansion of projects located within a notified industrial area/ estate	General as well as specific condition shall apply
5. Manufacturing/Fabrication				
5(a)	Chemical fertilizers	All projects except Single Super Phosphate	Single Super Phosphate	-
5(b)	Pesticides industry and pesticide specific intermediates (excluding formulations)	All units producing technical grade pesticides	-	-

5(c)	Petro-chemical complexes (industries based on processing of petroleum fractions & natural gas and/or reforming to aromatics)	All projects -	-	-
5(d)	Manmade fibres manufacturing	Rayon	Others	General Condition shall apply
5(e)	Petrochemical based processing (processes other than cracking & reformation and not covered under the complexes)	Located out side the notified industrial area/ estate -	Located in a notified industrial area/ estate	General as well as Specific Condition shall apply
5(f)	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	Located out side the notified industrial area/ estate	Located in a notified industrial area/ estate	General and Specific Condition shall apply
5(g)	Distilleries	(i)All Molasses based distilleries (ii) All Cane juice/ non-molasses based distilleries ≥30 KLD	All Cane juice/non-molasses based distilleries – <30 KLD	General Condition shall apply
5(h)	Integrated paint industry	-	All projects	General Condition shall apply

5(i)	Pulp & paper industry excluding manufacturing of paper from waste paper and manufacture of paper from ready pulp with out bleaching	Pulp manufacturing and Pulp& Paper manufacturing industry -	Paper manufacturing industry without pulp manufacturing	General Condition shall apply
5(j)	Sugar Industry	- -	≥ 5000 tcd cane crushing capacity	General Condition shall apply
6. Service Sectors				
6(a)	Oil & gas transportation pipe line (crude and refinery/ petrochemical products)**,** passing through national parks /sanctuaries/ coral reefs /ecologically sensitive areas including LNG Terminal	All projects -		-
6(b)	Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000)	-	All projects	General Condition shall apply
7. Physical Infrastructure including Environmental Services				
7(a)	Air ports	All projects including air strip, which are for commercial use	-	Note: Air strips which do not involve bunkering/ refueling facility and or Air Traffic Control are exempted

7(b)	All ship breaking yards including ship breaking units	All projects	-	-
7(c)	Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes.	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area. Industrial estates with area greater than 500 ha. and housing at least one Category B industry.	Industrial estates housing at least one Category B industry and area <500 ha. Industrial estates of area >500 ha. and not housing any industry belonging to Category A or B.	General as well as Special condition shall apply Note: (i) Industrial Estate of area below 500 ha. and not housing any industry of category A or B does not require clearance. (ii) If the area is less than 500 ha. but contains building and construction projects >20,000 sq.m and or development area more than 50 ha. it will be treated as activity listed at Serial No.8(a) or 8(b) in the Schedule as the case may be.
7(d)	Common hazardous waste treatment, storage and disposal facilities (TSDFs)	All integrated facilities having incineration &landfill or incineration alone	All facilities having land fill only	General Condition shall apply
7(e)	Ports, Harbours, break waters, dredging	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	<5 million TPA of cargo handling capacity and/or ports/ harbours ≥10,000 TPA of fish handling capacity	General Condition shall apply Note: 1. capital dredging inside and outside the port or harbors and channels are included; 2. Maintenance dredging is exempt provided it formed

				part of the original proposal for which Environment Management Plan (EMP) was prepared and environmental clearance obtained.
7(f)	Highways	i) New National High ways; and ii) Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition.	i) All State High way Projects; and ii) State Highway expansion projects in hilly terrain (above 1,000m AMSL) and or ecologically sensitive areas.	General Condition shall apply Note: Highways included expressways
7(g)	Aerial ropeways	(i) All projects located at altitude of 1000m and above. (ii) All projects located in notified ecologically sensitive areas.	All projects except those covered in Column (3)	General Condition shall apply
7(h)	Common Effluent Treatment Plants (CETPs)		All projects	General Condition shall apply
7(i)	Common Municipal Solid Waste Management Facility (CMSWMF)		All projects	General Condition shall apply
8. Building /Construction projects/Area Development projects and Townships				
8(a)	Building and Construction projects		≥20000 sq.mtrs and <1,50,000 sq.mtrs. of built-up area#	#(built up area for covered construction; in the case of facilities open to the sky, it will be the activity area)
8(b)	Townships and Area Development projects.		Covering an area ≥ 50 ha and or built up area ≥1,50,000 sq.mtrs ++	++All projects under Item 8(b) shall be appraised as Category B1

Note:-

General Condition (GC):

Any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas identified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas as notified under Section 3 of the Environment (Protection) Act, 1986, such as Mahableshwar, Panchgani, Matheran Pachmarhi, Dahanu, Doon Vallly, and (iv) inter-State boundaries and international boundaries.

Provided that the requirement regarding distance of 10 km of the inter-State boundaries can be reduced or completely done away with by an agreement between the respective States or U.Ts sharing the common boundary in case the activity does not fall with 10 kilometres of the areas mentioned at item (i), (ii) and (iii) above.

Specific Condition (SC):

If any Industrial Estate/Complex / Export processing Zones /Special Economic Zones/Biotech Parks / Leather Complex with homogeneous type of industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre –defined set of activities (not necessarily homogeneous, obtains prior environmental clearance, individual industries including proposed industrial housing within such estates /complexes will not be required to take prior environmental clearance, so long as the Terms and Conditions for the industrial estate/complex are complied with (Such estates/complexes must have a clearly identified management with the legal responsibility of ensuring adherence to the Terms and Conditions of prior environmental clearance, who may be held responsible for violation of the same throughout the life of the complex/estate).

Note:

1). As per the MoEF, GoI Office Memorandum No. J-11013/41/2006-IA.II (I) dated 13th May, 2011, Solar Photo Voltaic (PV) Power Projects are not covered under the ambit of the EIA Notification, 2006 and no environment clearance is required for such projects under the provisions thereof.

2]. As per the MoEF, GoI Office Memorandum No. L-11o11/47/2011-IA.II(M) dated 18th May, 2012, all mining projects of minor minerals including their renewal, irrespective of the size of the lease would henceforth require prior environment clearance. Mining projects with lease area up to less than 50 hectares including projects of minor minerals with lease area less than 5 hectare would be treated as category 'B' as defined in the EIA Notification, 2006 and will be considered by the respective SEIAAs notified by MoEF and following the procedure prescribed under EIA Notification, 2006.

5.9 THE BATTERIES (MANAGEMENT AND HANDLING) RULES, 2001

MoEF Notification S.O.432(E) dated 16.5.2001 **(**Source: CPCB PCLS/02/2010 Sixth Edition)

Salient features

Rule 2	**Application.-** These rules shall apply to every manufacturer, importer, re-conditioner, assembler, dealer, recycler, auctioneer, consumer, and bulk consumer involved in manufacture, processing, sale, purchase and use of batteries or components thereof.
Rule 3	**Definitions.-** (e) 'battery' – means lead acid battery which is a source of electrical energy and contains lead metal. (r) 'used batteries' – means use, damaged and old lead acid batteries or components thereof; and
Rule 4	**Responsibilities of manufacturer, importer, assembler, and Re-Conditioner.-** It shall be the responsibility of a manufacturer, importer, assembler and re-conditioner to (i) ensure that the used batteries are collected back as per the Schedule against new batteries sold excluding those sold to original equipment manufacturer and bulk consumer(s); (iii) file a half-yearly return of their sales and buy-back to the State Board in Form-I latest by 30th June and 31st December of every year; (v)ensure that used batteries collected are sent only to the registered recyclers; (viii b) responsibility of consumers to return their used batteries only to the dealers or deliver at designated collection centers;
Rule 5	**Registration of Importers.-** The importer shall get himself registered with the Ministry of Environment & Forests or any agency designated by it by submitting details in Form-II.
Rule 6	Customs Clearance of Imports of New Lead Acid Batteries
Rule 7	**Responsibility of Dealer.-** It shall be the responsibility of a dealer to (i) ensure that the used batteries are collected back as per the Schedule against new batteries sold; (iv) file half-yearly returns of the sale of new batteries and buy-back of old batteries to the manufacturer in Form-V by 31st may and 30th November of every year: (v) ensure safe transportation of collected batteries to the designated collection centers or to the registered recyclers;
Rule 8	**Responsibility of Recyclers.-** Each recycler shall (i) apply for registration to the MoEF or an agency designated by it if not applied already, by submitting information in Form VI; (iii) submit annual returns as per Form VII to the State Board

Rule 9	**Procedure for registration / renewal of registration of recyclers.-** (1) Every recycler of used lead acid batteries shall make an application in Form VI along with the following documents to the Joint Secretary, MoEF or any officer designated by the Ministry or an agency designated by if for grant of registration or renewal. (a) copy of the valid consents under Water P&CP) Act, 1974 , as amended and Air (P&CP) Act, 1981 as amended. (b) a copy of valid authorization under Hazardous Waste (Management and Handling) Rules, 1989 as amended; (c) a copy of valid certificate of registration with District Industries Centre: and (d) a copy of the proof of installed capacity issued by either SPCB / District Industries Centre. (7) The Joint Secretary, MoEF or any officer designated by the Ministry or an agency designated by it may cancel or suspend a registration issued under these rules, if in his/her opinion, the registered recycler has failed to comply with any of the conditions of registration, or with any provisions of the Act or rules made there under after giving him an opportunity to explain and after recording the reasons there for; (8) It shall be the responsibility of the State Boards to monitor the compliance of conditions prescribed while according registration
Rule 10	**Responsibilities of Consumer or Bulk consumer.-** (1) It shall be the responsibility of the consumer to ensure that used batteries are not disposed of in any manner other than depositing with the dealer, manufacturer, importer, assembler, registered recycler, re-conditioner or at the designated collection centers. (2) It shall be the responsibility of the bulk consumer to (i) ensure that used batteries are not disposed of in any manner other than depositing with the dealer/manufacturer/registered recycler/importer/re-conditioner or at the designated collection centers; and (ii). file half-yearly return in Form VIII to the State Board (3) Bulk consumers or their user units may auction used batteries to registered recyclers only.
Rule 11	**Responsibilities of Auctioneer.-** The auctioneer shall (i) Ensure that used batteries are auctioned to the registered recyclers only; (ii) file half-yearly returns of their auctions to the State Boards in Form – IX; and (iii) maintain a record of such auctions and make these records available to the State Board for inspection
Rule 12	**Prescribed Authority.-** The prescribed authority for ensuring compliance to the provisions of these rules shall be the State Board. And, it shall file an annual compliance status report to the CPCB by 30th April of every year.
Rule 13	Duties of Central Pollution Control Board
Rule 14	Computerization of Records and Returns
Schedule	Time limit for collection of used batteries

5.10 UTILIZATION OF FLY ASH FROM COAL OR LIGNITE BASED THERMAL POWER PLANTS, MoEF Notification Dated 14.9.1999 as amended

(Source: CPCB PCLS/02/2010 Sixth Edition)

Salient features

<table>
<tr><td>Para 1</td><td>Use of fly ash, bottom ash, or pond ash in the manufacture of bricks and other construction activities:-
(1) No person shall within a radius of one hundred kilometres from coal or lignite based power plants, manufacture clay bricks or tiles or blocks for use in construction activities without mixing at least 25 percent of ash (fly ash, bottom ash, or pond ash) with soil on weight to weight basis.
(i) use of fly ash based products in construction activities.</td></tr>
<tr><td>Para 1(A)</td><td>Every construction agency engaged in construction of buildings within a radius of hundred kilometers from a coal or lignite based thermal power plant shall use only fly ash based products for construction, such as cement or concrete, fly ash bricks or tiles or clay fly ash bricks, or bricks, blocks or tiles or cement fly ash bricks or blocks or similar products or a combination or aggregate of them, in every construction project.</td></tr>
<tr><td>Para 1(B)</td><td>The provisions of sub-paragraph (1A) shall be applicable to all construction agencies of Central or State or Local Government and private or public sector and it shall be the responsibility of the agencies either undertaking construction or approving the design or both to ensure compliance of the provisions of sub-paragraph (1A) and to submit annual returns to the concerned State Pollution Control Board or Pollution Control Committee, as applicable.</td></tr>
<tr><td>Para 1(C)</td><td>Minimum fly ash content for building materials or products to qualify as ‘fly ash based products’ category shall be as given in Table I below:
<table>
<tr><th>S.No.</th><th>Building Materials or Products</th><th>Minimum % of fly ash by weight</th></tr>
<tr><td>1</td><td>Fly ash bricks, blocks, tiles, etc., made with fly ash, lime, gypsum, sand, stone dust etc., (without clay)</td><td>50% of total input materials</td></tr>
<tr><td>2</td><td>Paving blocks, paving tiles, checker tiles, mosaic tiles, roofing sheets, pre-cast elements, etc., wherein cement is used as binder.</td><td>Usage of PPC (IS-1489: Part-1) or PSC (IS-455) or 15% of OPC (IS-269/8112/12269) content.</td></tr>
<tr><td>3</td><td>Cement</td><td>15% of total raw materials</td></tr>
<tr><td>4</td><td>Clay based building materials such as bricks, blocks, tiles, etc.,</td><td>25% of total raw materials</td></tr>
<tr><td>5</td><td>Concrete, mortar and plaster</td><td>Usage of PPC (IS-1489: Part-1) or PSC (IS-455) or 15% of OPC (IS-269/8112/12269)</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td>content.</td></tr>
<tr><td>Para 1[D)</td><td>The authority for ensuring the use of specified quantity of ash as per sub-paragraph (1C) shall be the concerned Regional Officer of the State Pollution Control Board or the Pollution Control Committee, as the case may be.</td></tr>
<tr><td>Para 1(E)</td><td>The concerned State Government shall be the enforcing and monitoring authority for ensuring compliance of the provisions of sub-paragraph (1A)</td></tr>
<tr><td>Para 2(1)</td><td>Responsibilities of Thermal Power Plants
[Every coal or lignite based thermal power plant shall take the following steps to ensure the utilization of ash generated by it, namely:-]
All coal or lignite based thermal power stations would be free to sell fly ash to the user agencies subject to the following conditions, namely:-
(i) the pond ash should be made available free of any charge on “as is where basis” to manufactures of bricks, blocks or tiles including clay fly ash product manufacturing unit(s), farmers, the Central and the State road construction agencies, Public Works Department, and also to agencies engaged in backfilling or stowing of mines.
(ii) at least 20% of dry ESP fly ash shall be made available free of charge to units manufacturing fly ash or clay-fly ash bricks, blocks and tiles on a priority basis over other users and if the demand from such agencies falls short of 20% of quantity, the balance quantity can be sold or disposed of by the power station as may be possible;
Provided that the fly ash obtained from the thermal power station should be utilized on for the purpose for which it was obtained from the thermal power station or plant failing which no fly ash shall be made available to the defaulting users.</td></tr>
<tr><td>Para 2(2)</td><td>All coal and, or lignite based thermal power stations and, or expansion units in operation before the date of this notification are to achieve the target of fly ash utilization as per the Table-II given below:-
<table>
<tr><th>S. No</th><th>Percentage of Utilization of Fly Ash</th><th>Target Date</th></tr>
<tr><td>1.</td><td>At least 50% of fly ash generation</td><td>One year from the date of issue of this notification</td></tr>
<tr><td>2.</td><td>At least 60% of fly ash generation</td><td>Two years from the date of issue of this notification</td></tr>
<tr><td>3.</td><td>At least 75% of fly ash generation</td><td>Three years from the date of issue of this notification</td></tr>
<tr><td>4.</td><td>At least 90% of fly ash generation</td><td>Four years from the date of issue of this notification</td></tr>
<tr><td>5.</td><td>100% of fly ash generation</td><td>Five years from the date of issue of this notification</td></tr>
</table>
The unutilized fly ash in relation to the target during a year, if any, shall be utilized within next two years in addition to the targets</td></tr>
</table>

<table>
<tr><td></td><td>stipulated for those years and the balance unutilized fly ash accumulated during first five years (the difference between the generation and the utilization target) shall be utilized progressively over next five years in addition to 100% utilization of current generation of fly ash.</td></tr>
<tr><td>Para 2(3)</td><td>New coal and, or lignite based thermal power stations and, or expansion units commissioned after this notification to achieve the target of fly ash utilization as per the TABLE – III given below:-
<table>
<tr><th>S.No.</th><th>Fly Ash Utilization Level</th><th>Target Date</th></tr>
<tr><td>1.</td><td>At least 50% of fly ash generation</td><td>One year from the date of commissioning</td></tr>
<tr><td>2.</td><td>At least 70% of fly ash generation</td><td>Two years from the date of commissioning</td></tr>
<tr><td>3.</td><td>90% of fly ash generation</td><td>Three years from the date of commissioning</td></tr>
<tr><td>4.</td><td>100% of fly ash generation</td><td>Four years from the date of commissioning</td></tr>
</table>
The unutilized fly ash in relation to the target during a year, if any, shall be utilized within next two years, in addition to the targets stipulated for these years and the balance unutilized fly ash accumulated during first four years (the difference between the generation and the utilization target) shall be utilized progressively over next five years in addition to 100% utilization of current generation of fly ash.</td></tr>
<tr><td>Para 2 (4)</td><td>All action plans prepared by coal or lignite based thermal power plants in accordance with sub-para (2) and (3) of para 2 of this notification, shall be submitted to the Central Pollution Control Board, concerned State Pollution Control Board/Committee and concerned Regional Office of the Ministry of Environment and Forests within a period of four months from the date of publication of this notification.</td></tr>
<tr><td>Para 2(5)</td><td>The Central and State Government Agencies, the State Electricity Boards, the National Thermal Power Corporation and the management of the thermal power plants shall facilitate in making available land, electricity and water for manufacturing activities and provide access to the ash lifting area for promoting and settling up of ash-based production units in the proximity of the area where ash is generated by the power plant.</td></tr>
<tr><td>Para 2 (7)</td><td>Annual implementation report (for the period 1st April to 31st March) providing information about the compliance of provisions in this notification shall be submitted by the 30th day of April, every year to the Central Pollution Control Board, concerned State Pollution Control Board or Committee and concerned Regional Office of the Ministry of Environment and Forests by the coal or lignite based thermal power plants, and also be made a part of the annual report of the thermal power plant as well as thermal power plant wise information be provided in the annual report of thermal power producing agency</td></tr>
</table>

	owning more than one thermal power plant.
Para 2A	**Utilization of fly ash for reclamation of sea** Subject to the rules made under the Environment (Protection) Act, 1986, (29 of 1986) reclamation of sea shall be permissible method of utilization of fly ash.

5.11 THE MANUFACTURE, USE, IMPORT, EXPORT AND STORAGE OF HAZARDOUS MICROORGANISMS GENETICALLY ENGINEERED ORGANISMS OR CELLS RULES, 1989, MoEF, Notification No. G.S.R. 1037 (E) Dated 5.12.1989. (Source: CPCB PCLS/02/2010 Sixth Edition**)**

Salient Features

Rule 7	**Approval and Prohibitions Etc.** 1) No person shall import, export, transport, manufacture, process, use or sell any hazardous microorganisms of genetically engineered organisms / substances or cells except with the approval of the Genetic Engineering Approval Committee. 2) Use of pathogenic microorganisms or any genetically engineered organisms or cells for the purpose of research shall only be allowed in laboratories or inside laboratory area notified by the Ministry of Environment and Forests for this purpose under the Environment (Protection) Act, 1986. 3) The Genetic Engineering Approval Committee shall give directions to the occupier to determine or take measures concerning the discharge of microorganisms / genetically engineered organisms or cells mentioned in the Schedule from the laboratories, hospitals and other areas including prohibition of such discharges and laying down measures to be prevent such discharges. 4) Any person operating or using genetically engineered organisms / microorganisms mentioned in the schedule for scale up or pilot operations shall have to obtain license issued by the Genetic Engineering Approval Committee for any such activity. The processor shall have to apply for license in prescribed proforma. 5) Certain experiments for the purpose of education within the filed of gene technology or microorganisms may be carried out outside the laboratories and laboratory areas mentioned in sub-rule (2) and will be looked after by the Institutional Bio-safety Committee.
Rule 8	**Production** Production in which genetically engineered organisms or cells or microorganisms are generated or used shall not be commenced except with the consent of Genetic Engineering Approval Committee with respect of discharge of genetically engineered organisms or cells into the environment. This shall also apply to production taking plane in connection with development, testing and experiments where such production, etc., is not subject to rule 7.

5.12 THE HAZARDOUS WASTES (MANAGEMENT, HANDLING AND TRANSBOUNDARY MOVEMENT) RULES, 2008, MoEF Notification S.O. 2265(E) Dated 24.9.2008 (Source: CPCB PCLS/02/2010 Sixth Edition**)**

Salient Features

Rule 3	**Definitions.-** (l) ""hazardous waste" means any waste which by reason of any of its physical, chemical, reactive, toxic, flammable, explosive or corrosive, characteristics causes danger or is likely to cause danger to health or environment, whether alone or when in contact with other wastes or substances and shall include. (i) waste specified under column (3) of Schedule-I. (ii) wastes having constituents specified in Schedule-II if their concentration is equal to or more than the limit indicated in the said schedule, and (iii) wastes specified in Part A or Part B of the schedule-III in respect of import or export of such wastes in accordance with rules 12, 13 and 14 or the wastes other than those specified in Part A or Part B if they posses any of the hazardous characteristics specified in Part C of the Schedule; (ze] **"used oil"** means any oil – • derived from crude oil or mixtures containing synthetic oil including used engine oil, gear oil, hydraulic oil, turbine oil, compressor oil, industrial gear oil, heat transfer oil, transformer oil, spent oil and their tank bottom sludge and • suitable for reprocessing, if it meets the specifications laid down in Part-A of Schedule V, but does not include waste oil. (zf) **"waste oil"** means any oil – which includes spills of crude oil, emulsions, tank bottom sludge and slop oil generated from petroleum refineries installations or ships and can be used as fuel in furnaces for energy recovery, if it meets the specifications laid down in Part-B of Schedule -V either as such as or after reprocessing.
Rule 4 (1). (2).	**Responsibilities of the occupier for Handling of Hazardous Wastes.-** The occupier shall be responsible for safe and environmentally sound handling of hazardous wastes generated in his establishment. The hazardous wastes generated in the establishment of an occupier shall be sent or sold to a recycler or re-processor or re-user registered or authorized under these rules or shall be disposed of in an authorized disposal facility.

Rule 5 (1).	**Grant of Authorization for handling of Hazardous Wastes.-** Every person who is engaged in generation, processing, treatment, package, storage, transportation, use, collection, destruction, conversion, offering for sale, transfer or the like of the hazardous waste shall require to obtain authorization form the State Pollution Control Board.
(2).	The hazardous waste shall be collected, treated, re-cycled, re-processed, stored or disposed of only in such facilities as may be authorized by the State Pollution Control Board for the purpose.
(3).	Every person engaged in generation, processing, treatment, package, storage, transportation, use, collection, destruction, conversions, offering for sale, transfer or the like of the hazardous waste or occupier of the facility shall make an application in **Form 1** to the State Pollution Control Board for authorization within a period of sixty days from the date of commencement of these rules.
(6)	Every person authorized under these rules shall maintain the record of hazardous wastes handled by him in **Form 3** and prepare and submit to the State Pollution Control Board, an annual return containing the details specified in **Form 4** on or before the 30th day of June following to the financial year to which that return relates.
(7)	An application for renewal of an authorization shall be made in **Form** 1, before its expiry to the State Pollution Control Board.
Rule 6	Power to suspend or cancel an authorization
Rule 7 (1).	**Storage of Hazardous Waste.-** The occupiers, recyclers, re-processors, re-users, and operators of facility may store the hazardous wastes for a period not exceeding ninety days and shall maintain record of sale, transfer, storage, recycling and reprocessing of such wastes and make these records available for inspection.
Rule 8	Procedure for grant registration
Rule 9	Conditions for sale or transfer of hazardous wastes for recycling
Rule 10	Standards for Recycling
Rule 11	**Utilization of Hazardous Waste.-** The utilization of hazardous wastes as a supplementary resources or for energy recovery, or after processing shall be carried out by the units only after obtaining approval from the Central Pollution Control Board
Rule 12	**Import and Export (Transboundary Movement) of Hazardous Waste.-** The Ministry of Environment and Forests shall be the nodal Ministry to deal with the trans-boundary movement of the hazardous wastes and to grant permission for transit of the hazardous wastes through any part of India.
Rule 13	**Import and Export of Hazardous Wastes.-** (1) No import of the hazardous wastes from any country to India for disposal shall be permitted. (2) The import of hazardous waste from any country shall be permitted only for the recycling or recovery or reuse.

Rule 14	Import or Export of Hazardous Wastes for Recycling, Recovery and Reuse
Rule 15	Procedure for Export of Hazardous Wastes from India
Rule 16	Procedure for Import of Hazardous Waste
Rule 17	Illegal Traffic
Rule 18	**Treatment, Storage and Disposal Facility for Hazardous Wastes.-** (1) The State Government, occupier, operator of a facility or any association of occupiers shall individually or jointly or severally be responsible for, and identify sites for establishing the facility for treatment, storage, and disposal of the hazardous wastes in the State. (2) The operator of common facility or occupier of a captive facility, shall design and set up the Treatment, Storage and Disposal Facility as per technical guidelines issued by the Central Pollution Control Board in this regard from time to time and shall obtain approval from the State Pollution Control Board for design and layout in this regard from time to time. (3) The State Pollution Control Board shall monitor the setting up and operation of the Treatment, Storage, and Disposal facilities regularly. (4) The operator of the Treatment, Storage and Disposal Facility shall be responsible for safe and environmentally sound operation of the Treatment, the Storage and Disposal facility and its closure and post closure phase, as per guidelines issued by the Central Pollution Control Board from time to time. (5) The operator of the Treatment, Storage and Disposal Facility shall maintain records of hazardous wastes handled by him in **Form 3.**
Rule 19	Packaging and Labeling
Rule 20	Transportation of Hazardous Waste
Rule 21	Manifest system (Movement Document to be used within the Country only)
Rule 22	Records and Returns
Rule 23	Responsibility of Authorities
Rule 24	Accident reporting and follow up
Rule 25	Liability of occupier, transporter, operator of a facility and importer
Rule 26	Appeal

SCHEDULE I

[*See* rule 3(l)]

List of Process Generating Hazardous Wastes

S. No.	Processes	Hazardous Wastes*
1.	Petrochemical processes and pyrolytic operations	1.1 Furnace/reactor residue and debris 1.2 Tarry residues 1.3 Oily sludge emulsion 1.4 Organic residues 1.5 Residues from alkali wash of fuels 1.6 Still bottoms from distillation process 1.7 Spent catalyst and molecular sieves 1.8 Slop oil from wastewater
2.	Drilling operation for oil and gas production	2.1 Drill cutting containing oil 2.2 Sludge containing oil 2.3 Drilling mud and other drilling wastes
3.	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.1 Oil-containing cargo residue, washing water and sludge 3.2 Chemical-containing cargo residue and sludge 3.3 Sludge and filters contaminated with oil 3.4 Ballast water containing oil from ships.
4.	Petroleum refining/reprocessing of used oil/recycling of waste oil	1.1 Oily sludge/emulsion 1.2 Spent catalyst 1.3 Slop oil 1.4 Organic residues from process 1.5 Spent clay containing oil
5.	Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems or other applications	5.1 Used/spent oil 5.2 Wastes/residues containing oil
6.	Secondary production and/or use of zinc	6.1 Sludge and filter press cake arising out of production of zinc sulphate and Zinc compounds 6.2 Zinc fines/dust/ash/skimmings (dispersible form) 6.3 Other residues from processing of zinc ash/skimmings 6.4 Flue gas dust and other particulates
7.	Primary production of zinc/lead/copper and other non-ferrous metals except aluminium	7.1 Flue gas dust from roasting 7.2 Process residues 7.3 Arsenic-bearing sludge 7.4 Non ferrous metal bearing sludge and residue 7.5 Sludge from scrubbers

8.	Secondary production of copper	8.1 Spent electrolytic solutions 8.2 Sludges and filter cakes 8.3 Flue gas dust and other particulates
9.	Secondary production of lead	9.1 Lead bearing residues 9.2 Lead ash/particulate from flue gas
10.	Production and/or industrial use of cadmium and arsenic and their compounds	10.1 Residues containing cadmium and arsenic
11.	Production of primary and secondary aluminium	11.1 Sludges from off-gas treatment 11.2 Cathode residues including pot lining wastes 11.3 Tar containing wastes 11.4 Flue gas dust and other particulates 11.5 Wastes from treatment of salt slags and black drosses
12.	Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	12.1 Acid residues 12.2 Alkali residues 12.3 Spent bath /sludge containing sulphide, cyanide and toxic metals 12.4 Sludge from bath containing organic solvents 12.5 Phosphate sludge 12.6 Sludge from staining bath 12.7 Copper etching residues 12.8 Plating metal sludge
13.	Production of iron and steel including other ferrous alloys (electric furnaces; steel rolling and finishing mills; Coke oven and by product plant)	13.1 Sludge from acid recovery unit 13.2 Benzol acid sludge 13.3 Decanter tank tar sludge 13.4 Tar storage tank residue
14.	Hardening of steel	14.1 Cyanide-, nitrate-, or nitrite-containing sludge 14.2 Spent hardening salt
15.	Production of asbestos or asbestos-containing materials	15.1 Asbestos-containing residues 15.2 Discarded asbestos 15.3 Dust/particulates from exhaust gas treatment
16.	Production of caustic soda and chlorine	16.1 Mercury bearing sludge 16.2 Residue/sludges and filter cakes 16.3 Brine sludge containing mercury
17.	Production of mineral acids	17.1 Residues, dusts or filter cakes 17.2 Spent catalyst
18.	Production of nitrogenous and complex fertilizers	18.1 Spent catalyst 18.2 Spent carbon 18.3 Sludge/residue containing arsenic 18.4 Chromium sludge from water cooling

		tower
19.	Production of phenol	19.1 Residue/sludge containing phenol
20.	Production and/or industrial use of solvents	20.1 Contaminated aromatic, aliphatic or napthenic solvents may or may not be fit for reuse 20.2 Spent solvents 20.3 Distillation residues
21.	Production and/or industrial use of paints, pigments, lacquers, varnishes, plastics and inks	21.1 Process wastes, residues & sludges 21.2 Fillers residues
22.	Production of plastic raw materials	22.1 Residues of additives used in plastics manufacture like dyestuffs, stabilizers, flame retardants, etc. 22.2 Residues and waste plasticizers 22.3 Residues from vinylchloride monomer production 22.4 Residues from acrylonitrile production 22.5 Non-polymerised residues
23.	Production and/or industrial use of glues, cements, adhesive and resins	23.1 Wastes/residues (not made with vegetable or animal materials)
24.	Production of canvas and textiles	24.1 Chemical residues
25.	Industrial production and formulation of wood preservatives	25.1 Chemical residues 25.2 Residues from wood alkali bath
26.	Production or industrial use of synthetic dyes, dye-intermediates and pigments	26.1 Process waste sludge/residues containing acid or other toxic metals or organic complexes 26.2 Dust from air filtration system
27.	Production organo-silicone compounds	27.1 Process residues
28.	Production/formulation of drugs/ pharmaceuticals & health care product	28.1 Process Residues and wastes 28.2 Spent catalyst / spent carbon 28.3 Off specification products 28.4 Date-expired, discarded and off-specification drugs/ medicines 28.5 Spent organic solvents
29.	Production and formulation of pesticides including stock-piles	29.1 Process wastes/residues 29.2 Chemical sludge containing residues pesticides 29.3 Date-expired and off-specification pesticides
30.	Leather tanneries	30.1 Chromium bearing residue and sludge

31.	Electronic Industry	31.1 Process residues and wastes 31.2 Spent etching chemicals and solvents
32.	Pulp & Paper Industry	32.1 Spent chemicals 32.2 Corrosive wastes arising from use of strong acid and bases 32.3 Process sludge containing adsorbable organic halides (AO_x)
33.	Disposal of barrels / containers used for handling of hazardous wastes / chemicals	33.1 Chemical-containing residue arising from decontamination 33.2 Sludge from treatment of waste water arising out of cleaning / disposal of barrels / containers 33.3 Discarded containers / barrels / liners contaminated with hazardous wastes/chemicals
34.	Purification and treatment of exhaust, air, water & waste water from the processes in this schedule and common industrial effluent treatment plants (CETPs)	34.1 Flue gas cleaning residue 34.2 Spent ion exchange resin containing toxic metals 34.3 Chemical sludge from waste water treatment 34.4 Oil and grease skimming residues 34.5 Chromium sludge from cooling water treatment
35.	Purification process for organic compounds/solvents	35.1 Filters and filter material which have organic liquids in them, e.g. mineral oil, synthetic oil and organic chlorine compounds 35.2 Spent catalyst 35.3 Spent carbon
36.	Hazardous waste treatment processes, e.g. incineration, distillation, separation and concentration techniques	36.1 Sludge from wet scrubbers 36.2 Ash from incineration of hazardous waste, flue gas cleaning residues 36.3 Spent acid from batteries 36.4 Distillation residues from contaminated organic solvents

* The inclusion of wastes contained in this Schedule does not preclude the use of Schedule 2 to demonstrate that the waste is not hazardous. In case of dispute, the matter would be referred to the Technical Review Committee constituted by MoEF.

Schedule - II

[*See* rule 3(l)]

List of Wastes Constituents with Concentration Limits*

Class A

Concentration limit: 50 mg/kg

A1	Antimony and antimony compounds
A2	Arsenic and arsenic compounds
A3	Beryllium and beryllium compounds
A4	Cadmium and cadmium compounds
A5	Chromium (VI) compounds
A6	Mercury and mercury compounds
A7	Selenium and selenium compounds
A8	Tellurium and tellurium compounds
A9	Thallium and thallium compounds
A10	Inorganic cyanide compounds
A11	Metal carbonyls
A12	Napthalene
A13	Anthracene
A14	Phenanthrene
A15	Chrysene, benzo (a) anthracene, fluoranthene, benzo (a) pyrene, benzo (K) fluoranthene, indeno (1, 2, 3-cd) pyrene and benzo (ghi) perylene
A16	Halogenated compounds of aromatic rings, e.g. polychlorinated biphenyls, polychloroterphenyls and their derivatives
A17	Halogenated aromatic compounds
A18	Benzene
A19	Organo-chlorine pesticides
A20	Organo-tin Compounds
Class B	
Concentration limit: 5,000 mg/kg	
B1	Chromium (III) compounds
B2	Cobalt compounds
B3	Copper compounds
B4	Lead and lead compounds
B5	Molybdenum compounds
B6	Nickel compounds
B7	Inorganic Tin compounds
B8	Vanadium compounds
B9	Tungsten compounds
B10	Silver compounds
B11	Halogenated aliphatic compounds
B12	Organo phosphorus compounds
B13	Organic peroxides
B14	Organic nitro-and nitroso-compounds
B15	Organic azo-and azooxy compounds

B16	Nitriles
B17	Amines
B18	(Iso-and thio-) cyanates
B19	Phenol and phenolic compounds
B20	Mercaptans
B21	Asbestos
B22	Halogen-silanes
B23	Hydrazine (s)
B24	Flourine
B25	Chlorine
B26	Bromine
B27	White and red phosphorus
B28	Ferro-silicate and alloys
B29	Manganese-silicate
B30	Halogen-containing compounds which produce acidic vapours on contact with humid air or water, e.g. silicon tetrachloride, aluminium chloride, titanium tetrachloride
Class C **Concentration limit: 20,000 mg/kg**	
C1	Ammonia and ammonium compounds
C2	Inorganic peroxides
C3	Barium compounds except barium sulphate
C4	Fluorine compounds
C5	Phosphate compounds except phosphates of aluminium, calcium and iron
C6	Bromates, (hypo-bromites)
C7	Chlorates, (hypo-chlorites)
C8	Aromatic compounds other than those listed under A12 to A18
C9	Organic silicone compounds
C10	Organic sulphur compounds
C11	Iodates
C12	Nitrates, nitrites
C13	Sulphides
C14	Zinc compounds
C15	Salts of per-acids
C16	Acid amides
C17	Acid anhydrides
Class D **Concentration limit: 50,000 mg/kg**	
D1	Total Sulphur
D2	Inorganic acids
D3	Metal hydrogen sulphates
D4	Oxides and hydroxides except those of hydrogen, carbon, silicon, iron, aluminum, titanium, manganese, magnesium, calcium
D5	Total hydrocarbons other than those listed under A12 to A18

D6	Organic oxygen compounds
D7	Organic nitrogen compounds expressed as nitrogen
D8	Nitrides
D9	Hydrides
Class E Regardless of concentration limit, Classified as hazardous wastes if the waste exhibits any of the following Characteristics	
E1	**Flammable :** Flammable wastes with flash point 65.6°C or below
E2	**Explosive:** Waste which may explode under the effect of flame, heat or photochemical conditions. Any other wastes of explosive materials included in the Indian Explosive Act
E3	**Corrosive:** Wastes which may be corrosive, by chemical action, will cause severe damage when in contact with living tissue.
E4	**Toxic:** Wastes containing or contaminated with established toxic and or eco-toxic constituents
E5	**Carcinogenicity, Mutagenecity and Endocrine disruptively** Wastes contaminated or containing established carcinogens, mutagens and endocrine disruptors

* Waste constituents and their concentration limits given in this list are based on erstwhile BAGA (the Netherlands Environment Protection Agency) List of Hazardous Substances. In order to decide whether specific wastes listed above is hazardous or not, following points be taken into consideration:

(i) If a component of the waste appears in one of the five risk classes listed above (A,B,C,D or E) and the concentration of the component is equal to or more than the limit for the relevant risks class, the material is then classified as hazardous waste.

(ii) If a chemical compound containing a hazardous constituent is present in the waste, the concentration limit does not apply to the compound, but only to the hazardous constituent itself.

(iii) If multiple hazardous constituents from the same class are present in the waste, the concentrations are added together.

(iv) If multiple hazardous constituents from different classes are present in the waste, the lowest concentration limit corresponding to the constituent(s) applies.

(v) For determining the concentration of hazardous constituents in the waste "Toxicity Characteristics Leaching Procedure (TCLP) as per ASTM-D5233-92 should be adopted.

Schedule III	Part A	List of Hazardous Wastes Applicable for Import with Prior Informed Consent
	Part B	List of Hazardous Wastes applicable for Import and Export Not Requiring Prior Informed Consent
	Part C	List of Hazardous Characteristics
	Part D	List of Metal Scrap, Paper Waste and other wastes

		applicable for Import/Export
Seclude IV	List of Hazardous Wastes requiring Registration for Recycling / Reprocessing	
Schedule V	Part A	Specifications of used oil suitable for reprocessing / recycling
	Part B	Specifications of fuel derived from Waste Oil
Schedule VI	Hazardous Wastes Prohibited for Import and Export	
Schedule VII	List of Authorities and Corresponding Duties	
Form 1	Application for obtaining authorization for collection / reception / treatment / transport / storage / disposal of Hazardous Waste	
Form 2	Form for grant / renewal of authorization by SPCB / PCC for occupiers, reprocessors, rousers and operators of facilities for collection, reception, treatment, storage, transport, and disposal of hazardous waste	
Form 3	Format for maintaining records of hazardous wastes by the occupier or operator of a facility	
Form 4	Form for filing annual returns by the occupier or operator of facility	
Form 5	Form of application for Grant / Renewal of registration of industrial units possessing environmentally sound management facilities for reprocessing / recycling	
Form 6	Form for filing annual returns and records on recycling, hazardous wastes by the recyclers	
Form 7	Application for import or export of hazardous waste for reprocessing / recycling / reuse	
Form 8	Application for Transboundary movement of hazardous waste	
Form 9	Transboundary movement - Movement Document	
Form 10	Format for Maintaining records of hazardous waste imported and exported	
Form 11	Transport Emergency (TREM) Card	
Form 12	Marking of Hazardous waste container	
Form 13	Hazardous Waste Manifest	
Form 14	Format of Accident Report	
Form 15	Application filing Appeal against the order passed by CPCB / SPCB / PCC of the Union Territory	
Form 16	Form for Registration of Traders for Schedule III, Part (D)	

5.13 THE MANUFACTURE, STORAGE AND IMPORT OF HAZARDOUS CHEMICAL RULES, 1989 MoEF Notification S.O. 966(E) Dated 27.11.1989 (Source: CPCB PCLS/02/2010 Sixth Edition)

Rule 2	**Definitions.-** (e) "hazardous chemical" means- (i) any chemical which satisfies any of the criteria laid down in Part I of Schedule I or is listed in Column 2 of Part II of this Schedule; (ii)any chemical listed in Column 2 of Schedule 2; (iii) any chemical listed in Column 2 of Schedule 3; (h) "industrial activity" means- (i) an operation of process carried out in an industrial installation referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process, as the case may be; or (ii) isolated storage; or (iii) pipeline; (i) "isolated storage" means storage of a hazardous chemical, other than storage associated with an installation on the same site specified in Schedule 4 where that storage involves atleast the quantities of that chemical set out in Schedule 2
Rule 3	Duties of authorities
Rule 4	**General responsibility of the occupier during industrial activity.-** (1) This rule shall apply to,- (a). an industrial activity in which a hazardous chemical, which satisfies any of the criteria laid down in Part I of Schedule or listed in Column 2 of Part II of this Schedule is or may be involved; and (b). isolated storage of a hazardous chemicals listed in Schedule 2 in a quantity equal to or more than the threshold quantity specified in Column 3, thereof (2) An occupier who has control of an industrial activity in term of sub-rule (1) shall provide evidence to show that he has,- (a) identified the major accident hazards; and (b) taken adequate steps to - (i) prevent such major accidents and to limit their consequences to persons and the environment; (ii) provide to the persons working on the site with the information, training and equipment including antidotes necessary to ensure their safely.
Rule 5	Notification of Major accident.
Rule 6	Industrial activity to which rules 7 to 15 apply.
Rule 7	Approval and Notification of sites.

Rule 8	Updating of the site notification following changes in the threshold quantity.
Rule 9	Transitional provisions.
Rule 10	Safety reports and Safety Audit Reports.
Rule 11	Updating of reports under rule 10.
Rule 12	Requirements for further information to be sent to the authority
Rule 13	Preparation of on-site emergency plan by the occupier.
Rule 14	Preparation of off-site emergency plan by the authority
Rule 15	Information to be given to persons liable to be affected by a major accident
Rule 16	Disclosures of information
Rule 17	Collection, Development and Dissemination of Information.
Rule 18	Import of hazardous chemicals
Rule 19	Improvement notices
Rule 20	Power of the Central Government to modify the Schedule.
Schedule 1	Part –I Indicate toxicity level of chemicals Part-II List of Hazardous and Toxic chemicals
Schedule 2	Isolated storage at Installations other than those covered by schedule 4
Schedule 3	List of Hazardous Chemicals for Application of Rules 5 and 7 to 15 Part - I Named Chemicals Part – II Classes of Substances as defined in Part-I, Schedule-I and not specifically named in Part-I of this schedule
Schedule 4	List of Hazardous Chemicals Installation
Schedule 5	Authorities and their duties and corresponding Rules
Schedule 6	Information to be furnished regarding notification of a major accident
Schedule 7	Information to be furnished for the notification of sites
Schedule 8	Information to be furnished in a safety report
Schedule 9	Safety Data Sheet
Schedule 10	Format for maintaining records of hazardous chemicals imported
Schedule 11	Details to be furnished in the on-site emergency plan
Schedule 12	Details to be furnished in the off-site emergency plan

5.14 THE MUNICIPAL SOLID WASTES (MANAGEMENT AND HANDLING) RULES, 2000 MoEF, GoI Notification S.O. 908 (E) Dated 25.9.2000 (Source: CPCB PCLS/02/2010 Sixth Edition)

Salient Features

Rule 2	**Application.-** These rules apply to every municipal authority responsible for collection, segregation, storage, transportation, processing and disposal of municipal solid waste.
Rule 3	**Definitions.-** (xiv). "municipal authority" means Municipal Corporation, Municipality, Nagar Palika, Nagar Nigam, Nagar Panchayat, Municipal Council including notified area committee (NAC) or any other local body constituted under the relevant statutes and, where the management and handling of municipal solid waste is entrusted to such agency; (xv). "municipal solid waste" includes commercial and residential wastes generated in municipal or notified areas in either solid or semi-solid form excluding industrial hazardous wastes but including treated bio-medical wastes; (xvi) "operator of a facility" means a person who owns or operates a facility for collection, segregation, storage, transportation, processing and disposal of municipal solid wastes and also includes any other agency appointed as such by the municipal authority for management and handling of municipal solid wastes in the respective areas; (xxi) "segregation' means to separate the municipal solid wastes into the groups of organic, inorganic, recyclables and hazardous wastes;
Rule 4	**Responsibility of Municipal Authority.-** (1) Every municipal authority shall, within the territorial area of the municipality, be responsible for the implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes. (2) The municipal authority or an operator of a facility shall make an application in Form-I, for grant of authorization for setting up waste processing and disposal facility including landfills from the State Board or the Committee in order to comply with the implementation programme laid down in Schedule I. (3) The municipal authority shall comply with these rules as per the implementation schedule laid down in Schedule I. (4) The municipal authority shall furnish its annual report in Form-II,- a. to the Secretary-incharge of the Department of Urban Development of the concerned State or as the case may be of the

	Union territory, in case of a metropolitan city; or b. to the District Magistrate or the Deputy Commissioner concerned in case of all other towns and cities, with a copy to the State Board or the Committee on or before the 30th day of June every year.
Rule 5	Responsibility of the State Government and the Union territory Administrations
Rule 6	Responsibility of the Central Pollution Control Board and the State Board or the Committees
Rule 7	**Management of municipal solid wastes.-** (1) Any municipal solid waste generated in a city or a town, shall be managed and handled in accordance with the compliance criteria and the procedure laid down in Schedule-II. (2) The waste processing and disposal facilities to be set up by the municipal authority on their own or through an operator of a facility shall meet the specifications and standards as specified in Schedules III and IV.
Rule 8	Annual Reports
Rule 9	Accident Reporting
Schedule I Implementation Schedule	

Schedule -II

[see rules 6(1) and (3), 7(1)]

Management of Municipal Solid Wastes

S.No	Parameters	Compliance criteria
1.	Collection of municipal solid wastes	1. Littering of municipal solid waste shall be prohibited in cities, towns and in urban areas notified by the State Governments. To prohibit littering and facilitate compliance, the following steps shall be taken by the municipal authority, namely :- i. Organising house-to-house collection of municipal solid wastes through any of the methods, like community bin collection (central bin), house-to-house collection, collection on regular pre-informed timings and scheduling by using bell ringing of musical vehicle (without exceeding permissible noise levels); ii. Devising collection of waste from slums and squatter areas or localities including hotels, restaurants, office complexes and commercial areas; iii. Wastes from slaughter houses, meat and fish markets, fruits and vegetable markets, which are biodegradable in nature, shall be managed to make use of such wastes; iv. Bio-medical wastes and industrial wastes shall not be mixed with municipal solid wastes and such wastes shall follow the rules separately specified for the purpose; v. Collected waste from residential and other areas shall be transferred to community bin by hand-driven containerised carts or other small vehicles; vi. Horticlutural and construction or demolition wastes or debris shall be separately collected and disposed off following proper norms. Similarly, wastes generated at dairies shall be regulated in accordance with the State laws; vii. Waste (garbage, dry leaves) shall not be burnt; viii. Stray animals shall not be allowed to move around waste storage facilities or at any other place in the city or town and shall be managed in accordance with the State laws. 2. The municipal authority shall notify waste collection schedule and the likely method to be adopted for public benefit in a city or town.

		3. It shall be the responsibility of generator of wastes to avoid littering and ensure delivery of wastes in accordance with the collection and segregation system to be notified by the municipal authority as per para 1(2) of this Schedule.
2.	Segregation of municipal solid wastes	In order to encourage the citizens, municipal authority shall organise awareness programmes for segregation of wastes and shall promote recycling or reuse of segregated materials. The municipal authority shall undertake phased programme to ensure community participation in waste segregation. For this purpose, regular meetings at quarterly intervals shall be arranged by the municipal authorities with representatives of local resident welfare associations and non-governmental organizations.
3.	Storage of municipal solid wastes	Municipal authorities shall establish and maintain storage facilities in such a manner as they do not create unhygienic and insanitary conditions around it. Following criteria shall be taken into account while establishing and maintaining storage facilities, namely :- i. Storage facilities shall be created and established by taking into account quantities of waste generation in a given area and the population densities. A storage facility shall be so placed that it is accessible to users; ii. Storage facilities to be set up by municipal authorities or any other agency shall be so designed that wastes stored are not exposed to open atmosphere and shall be aesthetically acceptable and user-friendly; iii. Storage facilities or bins shall have easy to operate, design for handling, transfer and transportation of waste. Bins for storage of bio-degradable wastes shall be painted green, those for storage of recyclable wastes shall be printed white and those for storage of other wastes shall be painted black; iv. Manual handling of waste shall be prohibited. If unavoidable due to constraints, manual handling shall be carried out under proper precaution with due care for safety of workers.
4.	Transportation of municipal solid wastes	Vehicles used for transportation of wastes shall be covered. Waste should not be visible to public, nor exposed to open environment preventing their scattering. The following criteria shall be met, namely:- i. The storage facilities set up by municipal authorities shall be daily attended for clearing of wastes. The bins or containers wherever placed

		shall be cleaned before they start overflowing; ii. Transportation vehicles shall be so designed that multiple handling of wastes, prior to final disposal, is avoided.
5.	Processing of municipal solid wastes	Municipal authorities shall adopt suitable technology or combination of such technologies to make use of wastes so as to minimize burden on landfill. Following criteria shall be adopted, namely:- (i) The biodegradable wastes shall be processed by composting, vermicomposting, anaerobic digestion or any other appropriate biological processing for stabilization of wastes. It shall be ensured that compost or any other end product shall comply with standards as specified in Schedule-IV; (ii) Mixed waste containing recoverable resources shall follow the route of recycling. Incineration with or without energy recovery including pelletisation can also be used for processing wastes in specific cases. Municipal authority or the operator of a facility wishing to use other state-of-the-art technologies shall approach the Central Pollution Control Board to get the standards laid down before applying for grant of authorisation.
6.	Disposal of municipal solid wastes	Land filling shall be restricted to non-biodegradable, inert waste and other waste that are not suitable either for recycling or for biological processing. Land filling shall also be carried out for residues of waste processing facilities as well as pre-processing rejects from waste processing facilities. Land filling of mixed waste shall be avoided unless the same is found unsuitable for waste processing. Under unavoidable circumstances or till installation of alternate facilities, land-filling shall be done following proper norms. Landfill sites shall meet the specifications as given in Schedule -III.

Schedule III	Specifications for Landfill Sites
Schedule IV	Standards for Composting, Treated Leachates and Incineration
Form -I	Application for obtaining authorization
Form - II	Format of Annual Report to be submitted by the Municipal Authority
Form -III	Format for Issue of Authorisation
Form - IV	Format of Annual Review Report to be submitted by the State Pollution Control Board/Committees to the Central Pollution Control Board
Form - V	Accident reporting

5.15 THE PLASTIC WASTE (MANAGEMENT AND HANDLING) RULES, 2011 AS AMENDED MoEF Notification S.O.249(E) Dated 4.2.2011 & S.O. 1527(E) Dated 2.7.2011

Salient Features

Rule 3	**Definitions.-** (b) "Carry bags" mean bags made from any plastic material, used for the purpose of carrying or dispensing commodities but do not include bags that constitute or form an integral part of the packaging in which goods are sealed prior to use; (d) "Compostable plastics" means that undergoes degradation by biological processes during composting to yield CO_2, water, inorganic compounds and biomass at a rate consistent with other known compostable materials and does not leave visible, distinguishable or toxic residue; (f) "Disintegration" means the physical breakdown of a material into very small fragments; (g) "Extended producer's responsibility (EPR)" means the responsibility of a manufacturer of plastic carry bags, and multilayered plastic pouches and sachets and the brand owners using such carry bags and multilayered plastic pouches and sachets for the environmentally sound management of the product until the end of its life. (h) "Food-stuff" means ready to eat food products, fast food, processed or cooked food in liquid, powder, solid or semi solid form; (i) "Manufacturer" means any person who manufactures plastic carry bags or multilayered plastic pouches or scathes or like; (j) "Municipal authority" means Municipal Corporation, Municipality, Nagar Palika. Nagar Nigam, Nagar Panchayat, Municipal Council including notified are committee (NAC) or any other local body constituted under the relevant statutes and, where management and handling of municipal solid waste is entrusted to such agency; (l) "Plastic" means material which contains as an essential ingredient a high polymer and which at some stage in its processing into finished products can be shaped by flow; (m) "Plastic waste" means any plastic product such as carry bags, pouches or multilayered plastic pouch or sachet etc, which have been discarded after use or after their intended life is over; (n) "Registration" means registration with the SPCB or PCC concerned, as the case may be, of units manufacturing plastic carry bags,

	multilayered plastic pouch or sachet or recycling of plastic waste; (o) "Virgin plastic" means plastic material which has not been subjected to use earlier and has also not been blended with scrap or waste;
Rule 4	**Prescribed Authority.-** (a) for enforcement of the provisions of these rules related to registration, manufacture and recycling shall be SPCB. (b) for enforcement of the provisions of these rules relating to the use, collection, segregation, transportation and disposal of plastic waste, the prescribed authority shall be the municipal authority concerned.
Rule 5	**Conditions.-** During the course of manufacture, stocking, distribution, sale and use of carry bags and sachets, the following conditions shall be fulfilled, namely.- (a) carry bags shall either be in natural shade (colourless) which is without any added pigments or made using only those pigments and colourants which are in conformity with IS 9833 : 1981. (b) no person shall use carry bags made of recycled plastics or compostable plastics for storing, carrying, dispensing or packaging food stuffs; (c) no person shall manufacture, stock, distribute or sell any carry bag made of virgin or recycled or compostable plastic, which is less than **40 microns in thickness;** (d) sachets using plastic material shall not be used for storing, packing or selling gutkha, tobacco and pan masala; (e) recycled carry bags shall confirm to IS : 14534 : 1998; (f) carry bags made from compostable plastics shall conform to the IS/ISO 17088:2008. (g) plastic material, in any form, shall not be used in any package for packing gutkha, pan masala and tobacco in all forms.
Rule 6	**Plastic Waste Management.-** (a) recycling, recovery or disposal of plastic waste shall be carried out as per the rules, regulations and standards, stipulated by the Central Government from time to time; (b) recycling of plastics shall be carried out in accordance with the IS 14534:1998; (c) the municipal authority shall be responsible for setting up, operationalisation and co-ordination of the waste management system and for performing the associated functions, namely:- (i) to ensure safe

	collection, storage, segregation, transportation, processing and disposal of plastic waste; (ii) to ensure that no damage is caused to the environment during this process; (iii) to ensure setting up of collection centres for plastic waste involving manufactures; (iv) to ensure its channelisation to recyclers; (v) to create awareness among all stakeholders about their responsibilities; (vi) to engage agencies or groups working in waste management including waste pickers, and (vii) to ensure that open burning of plastic waste is not permitted; (d) (i) the responsibility for setting up collection systems for plastic waste shall be of the municipal authority concerned and the said municipal authority may, for this purpose, seek the assistance of manufacturers of plastic carry bags, multilayered plastic pouches or sachets or of brand owners using such products. (d) (ii) the municipal authority may work out the modalities of a mechanism based on Extended Producer's Responsibility involving such manufacturers, registered within its jurisdiction and brand owners with registered offices within its jurisdiction either individually or collectively, as feasible or set up such collection systems through its own agencies. (e) recyclers shall ensure that recycling facilities are in accordance with IS 14534: 1998. (f) the concerned municipal authority shall ensure that the residues generated from recycling processes are disposed of in compliance with Schedule II (Management of Municipal Solid Waste) and Schedule III (Specifications for Landfill Sites) of the MSW Rules, 2000. (g) the municipal authority shall incorporate the said rules in the Municipal bye laws of all the Urban Local Bodies; (h) the municipal authority shall encourage the use of plastic waste by adopting suitable technology such as in road construction, co-incineration etc. The municipal authority or the operator intending to use such technology shall ensure the compliance with the prescribed including pollution control norms prescribed by the competent authority in this regard.
Rule 8	**Marking or Labeling.-** (a) each plastic carry bag and multilayered packaging shall have the following information printed in English or in local language, namely:- (i) name, registration number of the manufacturer and thickness in case of carry bag; (ii) name and registration of the manufacturer in case of multilayered packaging; (b) each recycled carry bag shall bear a label or a mark "recycled" as

	shown in the rule and shall conform to the IS : 14534 : 1998. (c) each carry bag made from compostable plastics shall bear a label "compostable" and shall conform to the IS / ISO 17099 : 2008; (d) retailers shall ensure that plastic carry bags and multilayered packaging sold by them are properly labeled, as per stipulations under these rules.
Rule 9	**Registration of Manufacturers and Recyclers.-** (a) any person manufacturing or proposing to manufacture plastic carry bags, multilayered plastics pouch or sachet shall apply to the SPCB concerned to for the grant of registration or for the newneal of registration for the manufacturing unit using Form I; (b) any person recycling or proposing to recycle carry bags or multilayered plastics pouch or sachet or any plastic waste shall apply to the SPCB for grant of registration or renewal of registration for the recycling unit using Form 2; (c) no person shall manufacture plastic carry bags, multilayered plastic pouch or sachet or recycle plastic carry bags or multilayered plastic pouch or sachet or any plastic waste without obtaining registration certificate from the SPCB or PCC as the case may be, prior to the commencement of production; (d) the SPCB and PCC shall not issue or renew a registration for manufacturing or recycling units unless the unit possesses a valid consent under the Water (P&CP) Act and the Air (P&CP) Act, 1981 and certificate of registration issued by the DIC or any other Govt. agency authorized in this regard; (f) the registration granted under this rule shall be valid for a period of three years, unless revoked, suspended or cancelled; and registration shall not be revoked, suspended or cancelled without providing the manufacturer an opportunity for a hearing; (g) every application for renewal of registration shall be made at least ninety days before the expiry of the validity of the registration certificate.
Rule 10	**Explicit pricing of carry bags.-** No carry bags shall be made available free of cost by retailers to consumers. The concerned municipal authority may by notification determine the minimum price for carry bags depending upon their quality and size which covers their material and waste management costs in order to encourage their re-use so as to minimize plastic waste generation.
Rule 11	State Level Advisory Body
Rule 12	**Annual Reports.-**

	(1) each SPCB or PCC shall prepare and submit the annual report to the CPCB on the implementation of these rules by the 30th day of September of each year; (2) the CPCB shall prepare a consolidated annual report on the use and management of plastic waste and forward it to the central government along with its recommendations before the 30th day of December each year.
Form 1	Application for registration of a unit for the manufacture of plastic carry bags and multilayered plastics
Form 2	Application form for registration of facilities possessing environmentally sound management practices for recycling plastic waste

5. 16 THE NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000
MoEF Notification S.O.123(E) dated 14.2.2000 (Source: CPCB PCLS/02/2010 Sixth Edition)

Salient Features

Rule 2	**Definitions.-** (c) "authority" means and includes any authority or officer authorized by the Central Government, or as the case may be, the State Government in accordance with the laws in force and includes a District Magistrate, Police Commissioner, or any other officer not below the rank of the Deputy Superintendent of Police designated for the maintenance of the ambient air quality standards in respect of noise under any law for the time being in force.
Rule 3	**Ambient Air Quality Standards in respect of Noise for different areas / Zones.-** (1) The ambient air quality standards in respect of noise for different areas / zones shall be such as specified in the schedule annexed to these rules. (2) The State Government shall categorize the area into industrial, commercial, residential or silence areas / zones for the purpose of implementation of noise standards for different areas. (3) The State Government shall take measures for abetment of noise including noise emanating from vehicular movements, blowing of horns, busting of sound emitting fire crackers, use of loud speakers, or public address system and sound producing instrumental and ensure that the existing noise levels do not exceed the ambient air quality standards specified under these rules. (4) All development authorities, local bodies and other concerned authorities while planning developmental activity or carrying out

	functions relating to town and country planning shall take into consideration all aspects of noise pollution as a parameter of quality of life to avoid noise menace and to achieve the objective of maintaining the ambient air quality standards in respect of noise. (5) An area comprising not less than 100 meters around hospitals, educational institutions and courts may be declared as silence area / zone for the purpose of these rules.
Rule 4	**Responsibility as to Enforcement of Noise Pollution Control Measures.-** (1) The noise levels in any area / zone shall not exceed the ambient air quality standards in respect of noise as specified in the Schedule (2) The authority shall be responsible for enforcement of noise pollution control measures and due compliance of the ambient air quality standards in respect of noise.
Rule 5	**Restriction of the use of loud speakers / Public address system and Sound Producing Instruments.-** (1) A loudspeaker or public address system shall not be used except after obtaining written permission from the authority. (2) A loud speaker or public address system or any sound producing instrument or a musical instrument or a sound amplifier shall not be used at night time except in closed premises for communication within, like auditoria, conference rooms, community halls, banquet halls or during a public emergency. (3) Notwithstanding anything contained in sub-rule (2), the State Government may subject to such terms and conditions as are necessary to reduce noise pollution, permit use of loud speakers or public address systems during night hours (between 10.00 pm to 12.00 midnight) on or during any cultural or religious festive occasion of a limited duration not exceeding fifteen days in all during a calendar year. The Concerned State Government shall generally specify in advance, the number and particulars of the days on which such exemption would be operative. (4) The noise level at the boundary of the public place, where loudspeaker or public address system or any other noise source is being used shall not exceed 10 dB(A) above the ambient noise standards for the area or 75 dB(A) whichever is lower. (5) The peripheral noise level of a privately owned sound system or a sound producing instrument shall not, at the boundary of the private place, exceed by more than 5 dB(A) the ambient noise standards specified for the area in which it is used.
Rule 5A	**Restrictions on the use of horns, sound emitting construction equipments and bursting of fire crackers.-** 1) No horn shall be used in silence zones or during night time in residential areas except during a public emergency.

	2) Sound emitting fire crackers shall not be burst in silence zone or during night time. 3) Sound emitting construction equipments shall not be used or operated during night time in residential areas and silence zones.
Rule 6	**Consequences of any violation in silence zone / area.-** Whoever, in any place covered under silence zone / area commits any of the following offence, he shall be liable for penalty under the provisions of the Act.- (i) whoever, plays any music or uses sound amplifiers, (ii) whoever, beats a drum or tom – tom or blows a horn either musical or pressure, or trumpet or beats or sounds any instrument, (iii) whoever, exhibits any mimetic, musical or other performances of a nature to attract crowds. (iv) whoever, bursts sound emitting fire crackers; or (v) whoever, uses a loud speaker or a public address system.
Rule 7	**Complaints to be made to the Authority.-** (1) A person may, if the noise level exceeds the ambient noise standards by 10 dB(A) or more given in the corresponding columns against any area / zone, or, if there is a violation of any provision of these rules regarding restrictions imposed during night time, make a compliant to the authority. (2) The authority shall act on the compliant and take action against the violator in accordance with the provisions of these rules and any other law in force.
Rule 8	**Power to prohibit etc., continuance of music sound or Noise.-** 1) If the authority is satisfied from the report of an officer in charge of a police station or other information received by him including from the complainant that it is necessary to do so in order to prevent annoyance, disturbance, discomfort or injury or risk person who dwell or occupy property on the vicinity, he may, by a written order issue such directions as he may consider necessary to any person for preventing, prohibiting, controlling or regulating:- a. The carrying on in or upon any premises of – (i) any vocal or instrumental music, (ii) sounds caused by playing, beating, clashing, blowing or use in any manner whatsoever of any instrument including loudspeakers, public address systems, horn, construction equipment, appliance or apparatus or contrivance which is capable of producing or re-producing sound, (iii) sound caused by bursting of sound emitting fire crackers, or (b) The carrying on in or upon, any premises of any trade, a vocation or operation or process resulting in or attended with noise.

SCHEDULE

[See rule 3(1) and 4(1)]

Ambient Air Quality Standards in respect of Noise

Area Code	Category of Area/Zone	Limits in dB (A) Leq*	
		Day Time	Night Time
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Note :-

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
3. Silence zone is defined as an area comprising not less than 100 metres around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.
4. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority

* dB (A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing

A "decibel" is a unit in which noise is measured.

"A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

Leq : It is an energy mean of the noise level over a specified period.

5. 17 E.WASTE (MANAGEMENT AND HANDLING) RULES, 2011 MoEF Notification S.O.1035(E) dated 12.5.2011

Salient Features

Rule 2	**Application.-** These rules shall apply to every producer, consumer or bulk consumer involved in the manufacture, sale, purchase and processing of electrical and electronic equipment or components as specified in Schedule-I, collection centre, dismantler and recycler of e-waste and shall not apply to- (a) batteries as covered under the Batteries (Management and Handling) Rules, 2001 made under the Act; (b). Micro and small enterprises as defined in the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006); and (c) radio-active wastes as covered under the provisions of the Atomic Energy Act, 1962 (33 of 1962) and rules made there under.
Rule 3	**Definitions.-** (b) 'authorization' means permission for handling, collection, reception, storage, transportation, dismantling, recycling, treatment and disposal of e-waste granted under sub-rule(3) of rule 9; (c) 'bulk consumer' means bulk users of electrical and electronic equipment such as Central Government or State Government

	Departments, public sector undertakings, banks, educational institutions, multinational organizations, international agencies and private companies that are registered under the Factories Act, 1948 and Companies Act, 1956; (k) 'e-waste' means waste electrical and electronic equipment, whole or in part or rejects from their manufacturing and repair process, which are intended to be discarded; (q) 'producer' means any person who, irrespective of the selling technique used; (i) manufactures and offers to sell electrical and electronic equipment under his own brand; or (ii) offers to sell under his own brand, assembled electrical and electronic equipment produced by other manufacturers or suppliers; or (iii) offers to sell imported electrical and electronic equipment;
Rule 4	**Responsibilities of the producer.-** The producer of electrical and electronic equipment listed in Schedule I shall be responsible for:- (1) collection of e-waste generated during the manufacture of electrical and electronic equipment and channelizing it for recycling or disposal; (2) collection of e-waste generated from the 'end of life' of their products in line with the principle of 'Extended Producer Responsibility' and to ensure that such e-waste are channelized to registered dismantler or recycler. Producer shall, as necessary, ensure collection and channelization by authorizing collection agencies; (3) setting up of collection centers of take back systems either individually or collectively, (4) financing and organizing a system to meet the costs involved in the environmentally sound management of e-waste generated from the 'end of life' of its own products and historical waste available on the date from which these rules come into force. The financing arrangement of such a system shall be transparent. The producer may choose to establish such a system either individually or by joining a collective scheme; (5) proving contact details such as address, telephone numbers/helpline number of authorized collection centers to consumer(s), or bulk consumer(s) so as to facilitate return of used electrical and electronic equipment; (6) creating awareness through publications, advertisements, posters, or by any other means of communication and information booklets, (7) obtaining an authorization from the concerned State Pollution Control Board (SPCB)or Pollution Control Committee (PCC) in accordance with the procedure under rule 9,

	(8) maintaining records in Form 2 of the e-waste handled and make such records available for scrutiny by SPCB or the Committee concerned; (9) filing annual returns in Form 3 to the SPCB or Committee concerned on or before 30th June following the financial year to which that return relates.
Rule 5	Responsibilities of collection centres
Rule 6	Responsibilities of consumer or bulk consumer
Rule 7	Responsibilities of dismantler
Rule 8	Responsibilities of recycler
Rule 9	Procedure for grant of authorization
Rule 10	Power to suspend or cancel authorization
Rule 11	Procedure for grant of registration
Rule 12	Procedure for storage of e-waste
Rule 13	Reduction in the use of hazardous materials in the manufacture of electrical and electronic equipment
Rule 14	Duties of Authorities
Rule 15	Annual Report
Rule 16	Transportation of e-waste
Rule 17	Accident reporting and follow-up
Rule 18	The collection, storage, transportation, segregation, refurbishment, dismantling, recycling, and disposal of e-waste shall be in accordance with the procedures prescribed in the guidelines published by the CPCB from time to time.
Schedule-I	Categories of electrical and electronic equipment covered under the rules
Schedule -II	Applications, which are exempted from the requirements of sub-rule (1) of Rule 13
Schedule-III	List of authorities and corresponding duties
Form -1	Application for obtaining authorization for generation/ collection/ storage/dismantling/recycling of e-waste
Form -1(a)	Form for granting authorization for generation/collection / storage / dismantling / recycling of e-waste
Form -2	Form for maintaining records of e-waste handled/generated
Form -3	Form for filing annual returns
Form -4	Application form for registration of facilities possessing environmentally sound management practice for recycling e-waste
Form -5	Form for annual report to be submitted by SPCB/PCC to the CPCB

5.18 COSTAL REGULATION ZONE NOTIFICATION, 2011 (Source: MoEF, GoI Notification S.O.19(E) dated 6th January, 2011)

Salient Features

1. As per the notification, the Central Government declares the following areas as CRZ and imposes with effect from the date of the notification the following restrictions on the setting up and expansion of industries, operations or processes and the like in the CRZ,-

(i) the land area from High Tide Line (HTL) to 500 metres on the landward side along the sea front.

(ii) CRZ shall apply to the land area between HTL to 100 metres or width of the creek whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea and the distance upto which development along such tidal influenced water bodies is to be regulated shall be governed by the distance upto which the tidal effects are experienced which shall be determined based on salinity concentration of 5 parts per thousand (ppt) measured during the driest period of the year and distance upto which tidal effects are experienced shall be clearly identified and demarcated accordingly in the Coastal Zone Management Plans (CZMPs)

(iii) the land area falling between the hazard line and 500 metres from HTL on the landward side, in case of seafront and between the hazard line and 100 metres line in case of tidal influenced water body the word 'hazard line' denotes the line demarcated by MoEF through the Survey of India (SoI) taking into account tides, waves, sea level rise and shoreline changes.

(iv) land area between HTL and Low Tide Line (LTL) which will be termed as the intertidal zone.

(v) the water and the bed area between the LTL to the territorial water limit (12 Nm) in case of sea and the water and the bed area between LTL at the bank to the LTL on the opposite side of the bank, of tidal influenced water bodies.

2. The HTL means the line on the land upto which the highest water line reaches during the spring tide and shall be demarcated uniformly in all parts of the country by the demarcating authority(s) so authorized by the MoEF in accordance with the general guidelines issued.

3. Prohibited activities within CRZ,- The following are declared as prohibited activities within the CRZ,-

(i) Setting up of new industries and expansion of existing industries except,-

(a). those directly related to waterfront or directly needing foreshore facilities;

(b). projects of Department of Atomic Energy;

(c). facilities for generating power by non-conventional energy sources and setting up of desalination plants in the areas not classified as CRZ-I(i) based on an impact assessment study including social impacts,

(d). development of green field Airport already permitted only at Navi Mumbai,

(e). reconstruction, repair works of dwelling units of local communities including fishers in accordance with local town and country planning regulations.

(ii) Manufacture or handling oil storage or disposal of hazardous substance as specified in the notification of MoEF, except.-

(a). transfer of hazardous substances from ships to ports, terminals and refineries and vice versa;

(b). facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure II and facilities for regasifiaction of LNG in the areas not classified as CRZ I (i)

(iii) Setting up and expansion of fish processing units including warehousing except hatchery and natural fish drying in permitted areas:

(iv) Land reclamation, bunding or disturbing the natural course of seawater except those,-

(a). required for setting up, construction or modernization or expansion of foreshore facilities like ports, harbours, jetties, wharves, quays, slipways, bridges, sealink, road on stilts, and such as meant for defence and security purpose and for other facilities that are essential for activities permissible under the notification;

(b). measures for control of erosion, based on scientific including EIA studies

(c). maintenance or cleaning of waterways, channels and ports, based EIA studies;

(d). measures to prevent sand bars, installation of tidal regulators, laying of storm water drains or for structures for prevention of salinity ingress and freshwater recharge based on carried out by any agency to be specified MoEF.

(v) Setting up and expansion of units or mechanism for disposal of wastes and effluents expect facilities required for,-

(a). discharging treated effluents into the water course with approval under the Water (P&CP) Act, 1974;

(b). storm water drains and ancillary structures for pumping;

(c). treatment of waste and effluents arising from hotels, beach resorts and human settlements located in CRZ areas other than CRZ-I and disposal of treated wastes and effluents;

(vi) Discharge of untreated waste and effluents from industries, cities or towns and other human settlements. The concerned authorities shall implement schemes for phasing out existing discharge of this nature, if any, within a time period not exceeding two years from the date of issue of this notification.

(vii) Dumping of city or town wastes including construction debris, industrial solid wastes, fly ash for the purpose of land filling and the like and the concerned authority shall implement schemes for phasing out any existing prac-

tice, if any, shall be phased out within a period of one year from date of commencement of this notification.

(viii) Port and harbour projects in high eroding stretches of the coast, except those projects classified as strategic and defence related in terms of EIA Notification, 2006 identified by MoEF

(ix) Reclamation for commercial purposes such as shopping and housing complexes, hotels and entertainment activities.

(x) Mining of sand, rocks and other sub-strata materials except,-

(a). those rare minerals not available outside the CRZ area,

(b). exploration and exploitation of Oil and Natural Gas.

(xi) Drawl of groundwater and construction related thereto, within 200 metres of HTL; expect the following:-

(a). in the areas which are inhabited by the local communities and only for their use.

(b). in the area between 200 metres-500 metres zone the drawl of groundwater shall be permitted only when done manually through ordinary wells for drinking, horticulture, agriculture and fisheries and where no other source of water is available.

Note:- Restriction for such drawl may be imposed by the Authority designated by the State Government and Union territory Administration in the areas affected by sea water intrusion.

(xii) Construction activities in CRZ-I except those specified in para 8 of this notification

(xiii) Dressing or altering the sand dunes, hills, natural features including landscape changes for beautification, recreation and other such purpose.

(xiv) Facilities required for patrolling and vigilance activities of marine/coastal police stations.

4. Regulation of permissible activities in CRZ area.- The following activities shall be regulated except those prohibited in para 3 above,-

(i) (a) clearance shall be given for any activities in within the CRZ only if it requires waterfront and foreshore activities;

(b) for those projects which are listed under this notification and also attract EIA notification, 2006 for such projects clearance under EIA notification only shall be required subject to being recommended by the concerned State or Union territory CZMA.

(c) Housing schemes in CRZ as specified in paragraph 8 of this notification;

(d) Construction involving more than 20,000 sq.mts built-up area in CRZ-II shall be considered in accordance with EIA Notification, 2006 and in case of projects less than 20,000 sq.mts built-up area shall be approved by the

concerned State or Union territory Planning authorities in accordance with this notification after obtaining recommendations from the concerned CZMA and prior recommendations of the concern CZMA shall be essential for considering the grant of environmental clearance under EIA notification, 2006 or grant of approval by the relevant planning authority.

(e). MoEF may under a specific or general order specify projects which require prior public hearing of project affected people.

(f) construction and operation for ports and harbours, jetties, wharves, quays, slipways, ship construction yards, breakwaters, groynes, erosion control measures;

(ii) the following activities shall require clearance from MoEF, namely:-

(a) those activities not listed in the EIA notification, 2006.

(b) construction activities relating to projects of Department of Atomic Energy or Defence requirements for which foreshore facilities are essential such as, slipways, jetties, wharves, quays; expect for classified operational component of defence projects. Residential buildings, office buildings, hospital complexes, workshops of strategic and defence projects in terms of EIA notification, 2006;

(c) construction, operation of lighthouses;

(d) laying of pipelines, conveying systems, transmission line;

(e) exploration and extraction of oil and natural gas and all associated activities and facilities thereto;

(f) Foreshore requiring facilities for transport of raw materials, facilities for intake of cooling water and outfall for discharge of treated wastewater or cooling water from thermal power plants. MoEF may specify for category of projects such as at (f), (g) and (h) of para 4;

(g) Mining of rare minerals as listed by the Department of Atomic Energy;

(h) Facilities for generating power by non-conventional energy resources, desalination plants and weather radars;

(i) Demolition and reconstruction of (a) buildings of archaeological and historical importance, (ii) heritage buildings; and buildings under public use which means buildings such as for the purposes of workship, education, medical care and cultural activities;

CHAPTER 6

PROCEDURE FOR OBTAINING CONSENT

6.1 PROCEDURES FOR OBTAINING CONSENT OF THE TAMIL NADU POLLUTION CONTROL BOARD

6.1.1. Consent to Establish

Consent of the Board has to be obtained for both establishment and operation of the industry (new and existing industries), as required under the provisions of the Water / Air Acts. The industries which commissioned before 27.2.1982 are considered as existing industries and the industries which have commissioned on or after 27.2.1982 are considered as new industries.

1. The Tamil Nadu Pollution Control Board enforces the Water (Prevention and Control of Pollution) Act, 1974 as amended, Air (Prevention and Control of Pollution) Act, 1981 as amended and the Environment (protection) Act, 1986. Under the Water (P&CP) Act, 1974 as amended and under the Air (P&CP) Act, 1981 as amended, the industries have to obtain the consent of the Board for the establishment and operation of the industry.

As per section 25 of the Water (P&CP) Act, 1974 as amended, no person shall without the previous consent of the State Board, establish or take any steps to establish any industrial plant or process or any treatment and disposal system or any extension or addition thereto which is likely to discharge sewage or trade effluent into any stream or well or sewer or on land. As per sub Section 2 of Section 25 of the said Act, an application for consent of the State Board under sub Section (1) shall be made in such form containing such particulars and shall be accompanied by such fees as may be prescribed.

Also as per Section 21 of the Air (P & CP) Act, 1981 as amended, no person shall without the previous consent of the State Board, operate any industrial plant for the purpose of any industry in an Air Pollution Control area. (The Govt. of Tamil Nadu vide GO Ms. No.4 Environment Control Dept. dt. 28.09.1983 declared the entire area within the state of Tamil Nadu as air pollution Control area). As per Sub Section (2) of Section 21 of the said Act, an application for consent of the State Board under Sub Section (1) shall be accompanied by such fees as may be prescribed and shall be made in the prescribed form and shall contain the particulars of the industrial plant and such other particulars as may be prescribed.

2. The application Forms can be had from the concerned District office on payment of Rs.200/- per set of three forms, under Water/Air Acts through a Demand Draft drawn in favour of the District Officer concerned. Application can

also be downloaded from TNPCB web site: www.tnpcb.gov.in

3. The application forms are to be completely filled in and the first 2 copies are to be submitted to the District Officer concerned with all the required enclosures along with demand draft for appropriate consent fee under Water/Air Act. The third copy of the applications under Water/Air Act is to be retained by the industry for their office purpose.

4. After submission of application in complete shape, it will be processed and site will be inspected by the officers of TNPCB. Thereafter, the subject will be placed before the respective Committee and decision will be taken. The application which satisfies all the requirements will be cleared and consent for establishment will be issued for a validity period of two years.

7. If the project proponent does not able to complete the establishment of the project within two years, then he/she has to apply for renewal of CTE one month before the expiry of CTE to the concerned District Officer. Renewal will be issued after field inspection by the concerned Officer.

8. As per EIA Notification 2006, 39 categories of industries have to obtain environmental clearance form Ministry of Environment and Forests, Government of India / State Environmental l Impact Assessment Authority, Government of Tamil Nadu as the case may be. (Please refer salient features of EIA notification 2006). TNPCB will issue consent for establishment to the projects which attracts EIA notification 2006, only on receipt of environment clearance form MOEF/SEIAA and after satisfying the citing criteria and all other requirements.

9. In case of Projects which are covered under Coastal Regulation Zone Notification, 2011, Clearance shall be obtained from Coastal Zone Management Authority, before applying for Consent of Tamil Nadu Pollution Control Board. DEE, TNPCB is the convener of the District Coastal Zone Management Committee.

6.1.2 Consent to Operate

The Industries have to apply for the consent of the Board for operation of the industry two months in advance of the commissioning of the operation. The format in which the information to be submitted for the consent for operation may be obtained from the concerned District Office. The Industry should fill in the format completely and submit it to the District office concerned. The District Officer will inspect the industry to verify whether all the conditions imposed in the consent for establishment have been complied with. The above report will be scrutinized and consent for operation will be granted.

6.1.3 Online Consent Application

TNPCB offers a facility of applying consent through online. Further details: - visit TNPCB web site: www.tnpcb.gov.in

6.1.4 Centralized Application Receiving Centre (CARE Centre)

TNPCB is operating Centralized Application Receiving Centre at the Head Office, Guindy, Chennai. This centre provides a complete guidance to the project proponent to get consent of TNPCB. This centre receives the filled application for consent from the project proponent who seeks consent for establishing the industry in Chennai, Kancheepuram and Tiruvallur districts. For other districts, the project proponent shall submit the application in the respective district office.

6.1.5 Appeal before the Appellate Authority

As per section 28 of the Water (P&CP) Act, 1974, any person aggrieved by an order made by the Tamil Nadu Pollution Control Board under section 25, section 26 or section 27 of the Water Act may, within thirty days from the date on which the order is communicated to him, prefer an appeal to Appellate Authority. Similarly, as per section 31 of the Air (P&CP) Act, 1981, any person aggrieved by an order made by the Tamil Nadu Pollution Control Board under the Air Act, may, within thirty days from the date on which the order is communicated to him, prefer an appeal to Appellate Authority.

6.2 PROCEDURES FOR OBTAINING RENEWAL CONSENT

Red category industries have to get the consent renewal annually. Orange category industries have to get the consent renewal annually till the Effluent Treatment Plant & Air Pollution Control measures are operated satisfactorily and there after once in two years. Green category industries have to get the consent renewal once in two years. Application for renewal has to be made sixty days prior to the date of expiry of the consent order to the District Officer along with appropriate consent fee. The District Officer will inspect the industry and submit report. Renewal of consent will be granted only after satisfactory compliance of all the conditions imposed in previous consent order.

6.2.1 Validity Period for Renewal Consent

The Board vide B.P. Ms No.33 dt.14.8.97 read with B.P. Ms No.3 dt.29.06.2004, has issued orders by fixing validity period for renewal consent

Sl. No.	Classification and Category of Industries	Validity period in the financial year
1.	All large scale units	31st March
2.	All red medium scale units	30th September
3.	All other medium scale units	31st March
4.	Red category SSI units	30th June
5.	Orange category SSI units	30th September

6.	Green category SSI units	31st December

In order to have effective consent management and strengthening of monitoring, the Board offers the following facility of extending the renewal of consent for additional terms, if the unit pays consent fee in advance and comply the conditions. (Ref: BP Ms No. 49 dated 21.11.2007)

Category	**Normal periodicity of renewal consent**	**Facility offered for extending periodicity of renewal consent**
Red (Large/Medium/Small)	1 year	2 terms of 1 year each
Orange (Large/Medium/Small)	2 year	2 terms of 2 year each
Green (Large/Medium/Small)	2 year	3 terms of 2 year each

6.2.2 Power Delegation for the issue of Consent Orders, Renewal of Consent Orders, issue of Authorization and Registration (Source: B.P. Ms. No. 38 dated 1.6.2013)

Sl. No.	**Particulars**	**17 – Category**	**Red – Large**	**Red – Medium**	**Red – Small**	**Orange - Large**	**Orange - Medium**	**Orange - Small & All Green**
1	Consent to Establish, Extension & Expansion	TSC	TSC	CCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
2	Consent to Operate & Expansion	CCC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
3	EIA & CRZ attracted Projects, CTE, Extension & Expansion	TSC	TSC	CCC	CCC	TSC	CCC	CCC
4	EIA & CRZ attracted Projects CTO & Expansion	CCC	CCC	CCC	CCC	CCC	CCC	CCC
5	CRZ alone attracting Projects CTE, Extension & Expansion	TSC	TSC	CCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
6	CRZ alone attracting Projects CTO & Expansion	CCC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	DO
7	Consent Renewal	Chairman	Chairman	M.S	DO	DO	DO	DO
8	Hazardous / BMW/ MSW Authorization	M.S	M.S	M.S	JCEE (M)	JCEE (M)	JCEE (M)	DO
9	Plastic Registration,	M.S	M.S	M.S	M.S	M.S	M.S	M.S

	E-Waste Authorization / Registration of recyclers							
10	Issue of Amendments (Name change, change in stack details etc.,)	Chairman	Chairman	M.S	ZLCCC	ZLCCC	ZLCCC	DO
11	For any expansion projects of highly polluting industries those are attracting the G.Os 213 & 127, the Issue of Consent will be considered by placing it in TSC in the case of RL, CCC in the Case of RM and ZLCCC in the case of RS followed by recommending the project in Board meeting for obtaining G.O relaxation from Government. After getting the G. O relaxation, CTE will be issued by Chairman in the case of RL, MS in the Case of RM and DO in the case of RS.							

6.2.3 Inspection / Sample Collection Frequency

The Board vide B.P. Ms No. 22 dated 25.2.2004 have fixed norms for inspection and sample collection from the industries as follows:

Type of Industry	Category	Inspection	Sample Collection
Large	Red Orange Green	Once in 3 months Once in 6 months Once in 2 years	Once in a month Once in 4 months ------
Medium	Red Orange Green	Once in 4 months Once in 6 months Once in 2 years	Once in 3 months Once in 6 months ------
Small	Red Orange Green	Once in a year Once in 2 years Once in 2 years	Once in 3-6 months Once in 6 months ------
17 Category of Industry		Once in a month	Once in a month

6.3 BANK GUARANTEE FORMAT

(Source: Circular Memo No.TNPCB/MISC/F 17978/ 2005 Dated 13.09.2005)

The Board insists the industries to furnish bank guarantee to ensure that they will install pollution control measures within the time schedule as assured. Even though the units install the pollution control measures as per the time schedule, their performance consistency shall be monitored by the District Officers by periodical sampling. Therefore the bank guarantee period shall include the performance monitoring period also. Hence the following time schedule shall be adopted for getting bank guarantee from the units.

Period given by the Board to install pollution control measures	Period required to monitor the performance	Period for which bank guarantee is to be obtained
3 months	3 months	6 months
6 months	6 months	12 months

12 months	6 months	18 months

Format (*to be typed in Rs.100/- non-judicial stamp paper*)

THIS DEED OF GUARANTEE made on the _____ day of _____ dated _____ by _____ of the one part in favour of TNPC Board of other part.

WHEREAS M/s._____ running an industry at _____ has approached the TNPC Board for the purpose of _____ and the TNPC Board having agreed to consider the request of the industry of M/s. _____ under the terms and conditions put forth in the schedule enclosed hereunder.

AND WHEREAS in accordance with clause _____ of the conditions put forth in the schedule enclosed hereunder the industry M/s. _____ is desirous of furnishing a Bank Guarantee from _____ for the sum of Rs._____ towards security deposit valid for _____ months.

AND WHEREAS at the request of the industry holder the Bank has agreed to give its guarantee as hereinafter contained. Now this deed witnesses as follows:

We (*Bank name and address is to be typed here*) (Herein after referred to as the Bank) do hereby undertake to pay the Board an amount not exceeding Rs._ _____ (*amount to be typed in figures & words*) against any non-fulfillment of the conditions contained in the schedule, wholly or partly by the said industry M/s. (*full address of the unit is to be type here*) and we, (*Bank name and address is to be typed here*) do hereby undertake to pay the amount due payable under this guarantee without any demur, merely on demand from the Board stating that the amount claimed is due by non-fulfillment of the conditions in the schedule wholly or partly by the said industry. Any such demand made on the Bank shall be conclusive as regards the amount due payable by the Bank under this guarantee. However our liability under this guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said schedule and that it shall continue to be enforceable till all dues of the Board under the schedule have been fully performed and its claim satisfied or discharged or till the Tamil Nadu Pollution Control Board (Office/Department) certifies that the terms and conditions of the said schedule have been fully and properly carried out by the said industry and accordingly discharges the guarantee. Unless a demand or claim under the guarantee is made on us in writing on or before_____ *(date of expiry of bank guarantee to be typed here*) we shall be discharged from all liability under this guarantee thereafter.

We *(Bank name and address is to be typed here*) further agree with the Board that the Board shall have full liberty without our concern and without affecting in any manner our obligation hereunder to every one of the terms and conditions of the said schedule or to the extent the time of performance by the said industry from time to time or to postpone for any time or from time to time any of the powers exercised by the Board against the said industry and forbear and enforce any of the terms and conditions relating to the said schedule and we shall not be relieved of our liability by reason of any such variation, or extension being granted to the said industry or for any forbearance, act or omission on the part of the Board or any indulgence by the Board.

We *(Bank name and address is to be typed here)* lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Board in writing.

(*Banker Signature with Seal*)

SCHEDULE TO THE BANK GUARANTEE NO.

M/s.

Name of the Industry which applied for the consent of the Board	**Bank guarantee Rupees**	**Terms and conditions**
(full address of the unit is to be typed here)	Rs.....	(*Conditions mentioned in Board letter shall be typed here*)

(Banker Seal with Signature)

6.4 CLASSIFICATION OF INDUSTRIES BASED ON GROSS FIXED ASSETS

The Board vide BP Ms. No. 13 Dated 22.11.2011 has revised classification of Industries based on gross fixed assets (GFA).

Classification of Industry	**Gross Fixed Assets (Gross Value of Land, building, plant & machinery and all other fixed assets)**
Small Scale	Upto Rs. 5 crores
Medium Scale	Above Rs 5 crores and upto Rs 10 Crores
Large Scale	Above Rs 10 Crores

6.5 CATEGORIZATION OF INDUSTRIES (Source: B.P. Ms. No.37 dated 1.6.2013)

Industries are classified either as Red, Orange, and Green on the basis of their potential for causing pollution. Red – Highly Polluting, Orange – Medium Polluting, Green – Less Polluting.

Central Pollution Control Board issued direction to all SPCBs /PCCs under Section 18(1)(b) of the Water (Prevention and Control of Pollution) Act, 1974, to maintain uniformity in categorization of industries as red, orange and green, for grant of consent, inventorization of industries and other related activities. The categorization is as follows:

RED CATEGORY

S. No.	Type of Industry
1	Airports and Commercial Air Strips (including *Airport / Air Strip)*
2	Aluminium smelter
3	Asbestos and asbestos based industries
4	Automobiles Manufacturing (Integrated facilities)
5	Basic Chemicals and electro chemicals and its derivatives including manufacture of acids.
6	Ceramic, Refractories (including *Abrasive Manufacturing Units, Artificial Stone manufacturing Units)*
7	Cement
8	Chlor Alkali
9	Chlorates, perchlorates and peroxides
10	Chlorine, fluorine, bromine, iodine, and their compounds
11	Coal Washeries
12	Copper smelter
13	Coke making, liquefaction, coal tar distillation or fuel gas making (including *Tar & Tar Products Manufacturing Units)*
14	Common Treatment and disposal facilities (CETP, TSDF, E-Waste recycling, CBMWTF, Effluent conveyance project, incinerators, solvent/ Acid recovery plant, MSW sanitary landfill sites, STP) (including *Sewage Treatment Plant, Electrical and Gasifier Crematorium)*
15	Distillery including Fermentation industry
16	Dyes and Dye-Intermediates
17	Dry coal processing/mineral processing, industries involving ore sintering, palletisation, grinding, pulverization (including *Iron, Ore & Coal Handling, Pulverizing Units, Mosaic Powder/China Clay)*
18	Emulsion of oil & water
19	Fermentation industry including manufacture of yeast, beer, distillation of alcohol (ENA)
20	Fertilizer (basic) (excluding formulation)

21	Ferrous and Non ferrous metal extraction involving different furnaces through melting, refining, reprocessing, casting and alloy making
22	Fibre glass production and processing (Excluding moulding)
23	Fire crackers manufacturing and bulk storage facilities
24	Flakes from rejected PET bottle
25	Fly ash export, transport and disposal facilities (including *Coal Ash Storage).*
26	Health care establishment (As defined in BMW Rules)
27	Heavy engineering including Ship Building (including *Light Engineering Units, Conveyor belt manufacturing / Reconditioning unit, Cylinder manufacturing unit / Washing unit)* (With investment on Plant & Machineries more than 10 Crores)
28	Hot mix plants
29	Hotels (3 Star & above) and Hotels having 100 rooms and above
30	Hydrocyanic acid and its derivatives
31	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black (including *Graphite Processing Units, charcoal manufacturing units)*
32	Industrial estates/parks/complexes /areas/ export processing zones/SEZs/Biotech parks/leather complex
33	Industrial inorganic gases namely:-
	a) *Chemical gases*: Acetylene, hydrogen, chlorine, fluorine, ammonia, sulphur dioxide, ethylene, hydrogen sulphide, phosphine
	b) *Hydrocarbon gases*: Methane, ethane, propane
34	Industries engaged in recycling / reprocessing/recovery/reuse of Hazardous Waste under schedule IV of Hazardous Waste (M,H & TBM) Rules, 2008 and its amendments
35	Industry or process involving foundry operations
36	Industry or process involving metal surface treatment or process such as pickling/plating/electroplating/paint stripping/heat treatment/phosphating or finishing and anodising/enamelling /galvanizing (including *Printed Circuit Boards)*
37	Iron and Steel (involving processing from ore/integrated steel plants and or sponge Iron Units
38	Isolated storage of hazardous chemicals (as per schedule of Manufacture, Storage & Import of Hazardous Chemicals Rules, 1989 as amended) (including *LPG Bottling Plant)*
39	Lead acid battery manufacturing (excluding assembling & charging of acid lead battery in micro scale (< Rs.25 lakhs)
40	Lime manufacturing (Using Lime Kiln)
41	Manufacturing of Explosives, detonators, fuses including management and handling activities
42	Manufacturing of Glass
43	Manufacturing of Glue and gelatin

44	Manufacturing of Lubricating oils, greases or petroleum based products
45	Manufacturing of Paints, Varnishes, pigments and intermediate (excluding blending/ mixing) (including *French polish manufacturer)*
46	Manufacturing of Starch/Sago
47	Milk processing and dairy products (integrated project)
48	Mineral stack yards/ Railway sidings
49	Mining and ore beneficiation (including *Garnet / Rare Earth Mining, Granite / Stone Quarries)*
50	New Highway construction projects.
51	Non alcoholic beverage (soft drink) & bottling of alcoholic/non-alcoholic products (capital investment on plant & machinery > 1 crore)
52	Nuclear Power Plants (including *Heavy Water Plants)*
53	Oil & Gas extraction including CBM (offshore & onshore extraction through drilling wells)
54	Oil and gas transportation pipeline
55	Oil Refinery (Mineral Oil or Petro Refineries)
56	Organic chemicals manufacturing
57	Parboiled rice mills (more than 10 TPD)
58	Pesticides (Technical) excluding formulation)
59	Petrochemicals (Manufacture of and not merely use of as raw material)
60	Pharmaceuticals (excluding formulation)
61	Pulp and Paper (Paper manufacturing with or without pulping)- (including *Handmade paper units, Kraft paper units and Leather Boards)*
62	Phosphate rock processing plant
63	Phosphorous and its compounds
64	Photographic films and its chemicals
65	Ports & Harbours, Jetties and Dredging Operations
66	Power Generation Plants (Except Wind, Solar and Mini Hydel Power Plants of capacity <25 MW) and DG set of capacity > 5 MVA (*including Hydel Power Plants >25 MW)*
67	Processing involving chlorinated hydrocarbons.
68	Railway Locomotive Workshops / Integrated Road transport workshop/ Authorized service centres
69	Reprocessing of used oils and waste oils
70	Ship breaking activities
71	Slaughter house (As per the notification S.O.270(E) dated: 26.03.2001) and meat processing industries, bone mill, processing of animal horns, hoofs and other body parts.
72	Steel and steel products using various furnaces like blast furnaces / open hearth furnace/induction furnace / arc furnace/submerged arc furnace / basic oxygen furnace/hot rolling using reheating furnace.
73	Stone crushers
74	Sugar (excluding Khandasari)

75	Surgical and medical products involving prophylactics and latex
76	Synthetic detergents and soaps (excluding formulation)
77	Synthetic fibres including rayon, tyre cord, polyester filament yarn
78	Synthetic resins
79	Synthetic rubber excluding molding (including *Tyre and Tube manufacturing)*
80	Tanneries
81	Thermal Power Plants
82	Tobacco products including cigarettes and tobacco /opium processing
83	Vegetable oils including solvent extraction and refinery/ hydrogenated oils (including *Flower Processing & Extraction Units)*
84	Yarn/textile processing involving any effluent/ emission- generating process bleaching, dyeing, printing and scouring (including *Surgical cotton / Bandage cloth manufacturing unit)*
85	Zinc Smelter
86	Any industrial activity having coal fired boiler of Steam Generation Capacity of 5T/Hr or above
87	*Aluminum powder*
88	*De-Polymerization/Pyrolysis of Plastic/Rubber to get Oil, Carbon Black etc*
89	*Desalination Plant from Sea Water*
90	*Match Work Units*
91	*Natural Rubber processing*
92	*Pesticide Formulation Units*
93	*Recycling and Re-Processing of e-Waste*
94	*Tyre & Tube, Rubber Compounds*

Note: *Sl.No. 87 to 94 are as per the classification done by TNPCB*

ORANGE CATEGORY

S. No.	**Type of Industry**
301	Almirah, Grill Manufacturing
302	Aluminium and copper extraction from scrap using oil fired furnace
303	Automobile servicing, repairing and painting (excluding only fuel dispensing)
304	Ayurvedic and Homeopathic medicine (including *Herbal Products Manufacturing Units)*
305	Bakery & confectionery units (with production capacity > 1 tpd)
306	Biaxially oriented PP film along with metalising operation (including *Hologram manufacture, Metallic film manufacturer)*
307	Brickfields (excluding fly ash brick manufacturing using lime process)
308	Building & construction projects more than 20,000 Sq mtr built up area
309	Cashew nut processing
310	Chanachur and ladoo from puffed and beaten rice(muri and chira) using husk fired oven

311	Chilling plant, cold storage and Ice making (including Cold Storage Units)
312	Coffee seed processing (including *Coffee powder, Chickery manufacturing unit)*
313	Coke briquetting (sun drying)
314	Cotton spinning and weaving (medium and large scale) (including *wool processing units, Yarn twisting / Doubling / Reeling unit* – without effluent generation)
315	Cutting, sizing and polishing of marble stones (including *Stone & Granite Polishing Units)*
316	Dairy and dairy products (small scale) (capital investment on plant & machinery < Rs. 1 crore)
317	Dal Mills
318	DG Set of capacity>1 MVA but < 5 MVA)
319	Digital printing on PVC cloth (including *Photo Colour Lab)*
320	Dismantling of rolling stocks (wagons/coaches)
321	Dry cell battery (excluding manufacturing of electrodes) & assembling & charging of acid lead battery in micro scale [< Rs. 25 lakhs] (including *Battery Reconditioning & Repair units)*
322	Emery powder (fine dust of sand) manufacturing
323	Engineering and fabrication units (including *Light Engineering Units, Conveyor belt manufacturing / Reconditioning unit, Cylinder manufacturing unit / Washing unit)* (With investment on Plant & Machineries < Rs. 10 Crores)
324	Excavation of sand from the river bed(excluding manual excavation)
325	Facility of handling storage and transportation of food grains in bulk.
326	Fertiliser (granulation and formulation only)
327	Fish feed, poultry feed and cattle feed (including *Leather Meal)*
328	Fish processing and packaging (excluding chilling of fish) including *(Sea Food Processing Units)*
329	Foam manufacturing (including Mat/mattress manufacture)
330	Food & food processing including fruits & vegetable processing (including *Fruit Pulp Extraction, Gerkins / Agro products, Sea shell / Shell washing unit, Sea weed processing units, seed processing unit, Soft drinks manufacturing unit with investment on Plant and machinery less than 1 Crore*)
331	Forging of ferrous & non-ferrous metal (using oil or gas fired boilers) (R)
332	Formulation/palletization of camphor tablets, naphthalene balls from camphor/naphthalene powders
333	Glass, ceramic, earthen potteries and tile manufacturing using oil or gas fired kiln, Coating on glasses using Calcium fluoride, Magnesium fluoride etc.,
334	Glue from starch (physical mixing)
335	Gravure printing, digital printing on flex, vinyl

336	Heat treatment using oil fired furnace (excluding Cyaniding)
337	Hotels (Less than 3 star) or hotels having > 20 rooms and less than 100 rooms.
338	Ice cream
339	Infrastructure development project (including *Education Institutions, Kalyana Mandapam, Building & construction projects less than 20,000 Sq mtr built up area)*
340	Jute processing without dyeing
341	Liquid floor cleaner, black phenyl, liquid soap, glycerol mono stearate manufacturing (including *Small Soap Units, Shoe polish manufacturing unit)*
342	Manufacture of mirror from sheet glass
343	Manufacturing of iodized salt from crude/raw salt
344	Manufacturing of mosquito repellent coil
345	Manufacturing of tooth powder, toothpaste, talcum powder and other cosmetic items (including *Fragrances, Perfumes & Cosmetics Formulation Units)*
346	Mechanized laundry using oil fired boiler (*including Dry cleaning -washing)*
347	Modular wooden furniture from particle board, MDF, Swan timber etc. Ceiling tiles/partition board from saw dust, wood chips etc., & other agricultural waste using synthetic adhesive resin, wooden box making
348	Packing materials manufacturing from non asbestos fibre, vegetable fibre yarn
349	Paint blending & missing (Ball mill) (R)
350	Pharmaceutical formulation and for R&D purpose (for sustained release/extended release of drugs only and not for commercial purpose)
351	Plyboard manufacturing (including veneer & laminate) with oil fired boiler/thermic fluid heater (without resin plant) *including Lamination board manufacturing unit*
352	Potable alcohol (IMFL) by blending, bottling of alcoholic products (capital investment on plant & machinery < Rs. 1 Crore
353	Power press
354	Printing ink manufacturing (including *Printing Ink / Ink Manufacturing Units)*
355	Printing or etching of glass sheet using hydrofluoric acid
356	Producer gas plant using conventional up-drift coal gasification (linked to rolling mills, glass and ceramic industry, refractories for dedicated fuel supply)
357	Pulverisation of bamboo and scrap wood
358	Repairing of electric motor & generator
359	Reprocessing of waste plastic (excluding PVC) (R)
360	Rice mill less than 10 TPD & rice hullers
361	Rolling Mill (oil or gas fired) and cold Rolling mill
362	Saw mill
363	Seasoning of wood in steam heated chamber

364	Silk screen printing, Saree printing by wooden blocks (including *Sericulture units, Silk processing unit- not involving wet operations*)
365	Spice grinding (>20 HP motor)
366	Spray painting, paint baking, Paint stripping
367	Tamarind powder manufacturing
368	Tea processing
369	Thermocol manufacturing
370	Thermometer making (R)
371	Transformer repairing/manufacturing
372	Tyres and tubes vulcanization/hot retreading
373	Wire drawing & Wire netting
374	*Aquaculture Units*
375	*Bottle Washing units*
376	*Cable wire manufacturing*
377	*Cement bagging unit*
378	*Cement / Scrap / Fish Meal & other Godowns*
379	*Chemical Mixing / Storage units*
380	*Desalination Plant from Ground water*
381	*Dry Tanning Operations*
382	*Electrode / Welding rods manufacturing*
383	*Fish net manufacture / Washing unit*
384	*Lighter Manufacture*
385	*Organic manure manufacturing unit*
386	*Sizing Units*
387	*Stationary products manufacturing units*
388	*Steam calendaring*
389	*Stiff collar manufacturing unit*
390	*Tissue culture unit*
391	*Water treatment plant*

Note: *Sl.No. 374 to 391are as per the classification done by TNPCB*

GREEN CATEGORY

Sl. No.	Type of Industry
601	Assembling of Acid lead battery (up to 10 batteries per day excluding lead plate casting)
602	Aluminium utensils from aluminium circles
603	Assembly of air coolers / conditioners, repairing and servicing
604	Assembly of bicycles, baby carriage and other small non-motorised vehicles
605	Automobile fuel outlet (only dispensing)
606	Ayurvedic and Homeopathic medicine (without boiler)
607	Bailing (hydraulic press) of waste papers

608	Bakery / Confectionery / Sweets production (with production capacity < 1tpd with oil, gas or electrical oven)
609	Bio fertilizer & bio-pesticide without using inorganic chemicals
610	Biomass Briquettes (sun drying) without using toxic or hazardous wastes.
611	Biscuit trays etc from rolled PVC sheet (using automatic vacuum forming machine)
612	Blending and packaging of Tea
613	Blending of melamine resins & different powder , additives by physical mixing
614	Block making for printing without foundry (excluding wooden block making)
615	Brass & Bell metal utensils manufacturing from circle (without re-Rolling facility)
616	Candy
617	Cardboard or corrugated box and paper products (excluding paper or pulp manufacturing and without using boiler) (including Paper products manufacturing unit)
618	Carpentry and wooden furniture manufacturing (excluding saw mill) with the help of electrical (motorized) machines such as electric wood planner, steel saw cutting circular blade etc.
619	Cement products (without using Asbestos) like pile, pillar, jafri, well ring, blocks/tiles etc. (should be done under closed covered shed to control fugitive emission) including Concrete slab/sleepers
620	Ceramic colour manufacturing (not using boiler and wastewater recycling process)
621	Chalk making from plaster of paris.
622	Chilling plant and Ice making without use of ammonia
623	Coated electrode manufacturing
624	Compact disc, computer floppy & cassette manufacturing
625	Compressed oxygen gas from crude liquid oxygen
626	CO2 recovery
627	Cotton and woolen hosiery making (SSI & Cottage industries)
628	Cotton spinning & weaving (small scale)
629	Decoration of ceramic cups & plates by electric furnace
630	Diesel Generator sets (15 KVA to 1 MVA)
631	Diesel pump repairing & servicing
632	Distilled water
633	Electric lamp (bulb) manufacturing (small scale)
634	Electrical & electronic items assembling
635	Flavoured bettle nut production/grinding
636	Flour mills (dry process)
637	Fly ash bricks / blocks manufacturing
638	Fountain pen manufacturing
639	Glass ampules & vials making from glass tubes.
640	Glass putty and sealant

641	Glass, ceramic, earthen potteries and tile manufacturing using electrical kiln or not involving fossil fuel kilns
642	Gold and Silver smithy (purification with acid, smelting operation and sulfuric acid polishing operation) (using less than or equal to 1 litre of Sulphuric Acid / Nitric Acid per month)
643	Groundnut decorticating (dry)
644	Handloom / Carpet weaving (without dyeing and bleaching operation)
645	Hotels (up to 20 rooms)
646	Insulation and other coated papers (excluding paper or pulp manufacturing) manufacturing
647	Jobbing and machining
648	Leather cutting and stitching (more than 10 machines and using motor)
649	Leather footwear and leather products (excluding tanning and hide processing) (except cottage scale)
650	Lubricating oil & greases or petroleum based products (only blending at normal temperature)
651	Manufacturing of coir items from coconut husk
652	Manufacturing of metal caps, containers etc.
653	Manufacturing of optical lenses (using electrical furnace)
654	Manufacturing of pasted veneers without using boiler or Thermic Fluid Heater or by sun drying.
655	Manufacturing of shoe brush & wire brush
656	Manufacturing of silica gel (without furnace)
657	Medical oxygen
658	Mineralized water
659	Oil mill ghani & extraction (no hydrogenation /refining)
660	Organic and inorganic nutrients (by physical mixing)
661	Organic manure (manual mixing)
662	Paints and varnishes (mixing and blending) (without ball mill)
663	Packing of powdered milk
664	Paper pins and U-clips (including Pin manufacturer (without electro plating)
665	Phenyl/Toilet cleaner formulation & Bottling
666	Reel manufacturing
667	Polythene & Plastic processed products manufacturing (virgin plastics)
668	Poultry, hatchery, piggery
669	Power looms (without dyeing and bleaching)
670	Printing press
671	Puffed rice (muri) (using, oil, gas or electrical heating system)
672	Ready mix cement concrete
673	Reprocessing of waste cotton (including Ginning Mills / Waste Cotton Units)
674	Rope (Cotton & Plastic)
675	Rubber goods industry (with baby boiler oily)
676	Scientific and mathematical instruments manufacturing (including

	Musical instruments manufacturing)
677	Soap manufacturing (Handmade without steam boiling)
678	Solar module (Non conventional energy apparatus) manufacturing unit (including Solar Cell manufacturing Units)
679	Solar power generation through solar photovoltic cell, wind power & mini hydel power (< 25 MW) including Hydel power plant (Small)
680	Spice grinding (<20 HP motor)
681	Steel furniture without spray painting
682	Steeping and processing of grains
683	Surgical and medical products not involving effluent/ emission generating processes
684	Synthetic detergent formulation,
685	Teflon based products
686	Tyres and tubes retreading (without boiler)

6.6 17 CATEGORY OF HIGHLY POLLUTING INDUSTRIES

The Ministry of Environment and Forests, Government of India have classified the following 17 category of Industries as highly polluting industries which are to be closely monitored.

1	Sugar	10	Caustic Soda
2	Cement	11	Pharmaceuticals
3	Distillery	12	Dye and Dye Stuff
4	Petrochemical	13	Refinery
5	Pulp & Paper	14	Copper Smelter
6	Fertilizer	15	Iron & Steel
7	Tannery	16	Zinc Smelter
8	Pesticides	17	Aluminium
9	Thermal Power Station		

6.7 IMPORTANT GOVERNMENT ORDERS

6.7.1 Ban on setting up of highly polluting industries with in 1 km from water bodies

ABSTRACT

ENVIRONMENT CONTROL – Control of Pollution of Water Sources – Location of industries within 1 k.m. From the embankments of rivers, streams, dams etc. – Imposition of restrictions – Orders – Issued.

ENVIRONMENT AND FORESTS (EC-I) DEPARTMENT

G.O.Ms.No.213 Dated the 30th March 1989

Read:-

1. G.O.Ms.No.1, Environment Control Dated 6.2.84.
2. From the Member – Secretary, Tamil Nadu Pollution Control Board Lr.No.BMS (1)/ 18878/88/ Dated 23.8.88.
3. From the Chairman, Tamil Nadu Pollution Control Board Lr.BMS (1)/44365/88 dt.3.11.88 and letter of even No. Dated 30.12.88.

ORDER

In the Government Order first read above, the Government have ordered, among other things, that no industry causing serious water pollution should be permitted within one kilometer from the embankments of rivers, streams, dams etc., and that the Tamil Nadu Pollution Control Board should furnish a list of such industries to all local bodies. It has been suggested that it is necessary to have a sharper definition for water sources so that ephemeral water collections like rain water ponds, drains, sewerages (bio-degradable) etc., may be excluded from the purview of the above order. The Chairman, Tamil Nadu Pollution Control Board has stated that the scope of the Government Order may be restricted to reservoirs, rivers and public drinking water sources. He has also stated that there should be a complete ban on location of highly polluting industries within 1 kilometer of certain water sources.

2. The Government have carefully examined the above suggestions. The Government impose a total ban on the setting up of the highly polluting industries mentioned in Annexure – I to this order within one kilometer from the embankments of the water sources mentioned in Annexure – II to this order.

3. The Government also direct that under any circumstances if any highly polluting industry is proposed to be set up within one kilometer from the embankments of water sources other than those mentioned in Annexure – II to this order, the Tamil Nadu Pollution Control Board should examine the case and obtain the approval of the Government for it.

4. The receipt of this order may be acknowledged

(BY ORDER OF THE GOVERNOR)

D.SUNDARESAN

COMMISSIONOR AND SECRETARY TO GOVERNMENT

Annexure – I to the G.O. Ms.No. 213 Dated 30.3.1989
LIST OF HIGHLY POLLUTING INDUSTRIES

1. Distilleries
2. Tanneries, Sago, Sugar, Dairies and Glue,
3. Fertilizer.
4. Pulp & Paper (With digester)
5. Chemical units generating trade effluent containing such pollutants which may pollute air, water and land before treatment and those chemicals which may alter the environmental quality by undergoing physical, chemical and biological transformation.
6. Petroleum Refinery
7. Textile Dying Units.
8. Steel Plant (Electroplating, Heat Treatment etc.)
9. Ceramics.
10. Thermal Power Stations using fuel other than Natural Gas/ LNG/ CNG/ Naptha/ Biomass (Amendment issued vide Letter (Ms). No.8, E&F, Dated 13.1.2007)
11. Basic Drug Manufacturing Units
12. Pesticide
13. Asbestos
14. Foundries

[Note: Government in G.O. Ms. No. 127/E&F/EC Dept./ECIII/dt. 8.5. 1998 read with G.O. MS.No. (ID) 223/E&F/EC.III/dt. 2.9.1998 have issued orders imposing a total ban of setting up of the above mentioned highly polluting industries within 5 kilometers from the embankments of the following rivers.

1. Cauvery and its tributaries
2. Pennaiyar
3. Palar
4. Vaigai
5. Tamirabarani **]**

Annexure – II to the G.O.Ms. 213 dated 30.3.1989

LIST OF RIVERS, STREAMS, RESERVOIRS ETC.

Sl. No	Rivers	Tanks and Reservoirs	Canals
(1)	(2)	(3)	(4)
CHENNAI, THIRUVALLUR AND KANCHEEPURAM DISTRICT			
1.	Araniyaru	Chembarambakkam Tank	Upper Supply Channel (Poondi to Cholavaram)
2.	Koratalaiyar	Thenneri Hissa Tank	Lower Supply Channel (Cholavaram to Redhills)
3.	Cooum	Uthiramerur Tank	Cheyyar Anicut Main Channel.
4.	Adyar	Madurantagam Tank	
5.	Palar	Parayankalathur Tank	
6.	Nagari	Cooum Tank	
7.	Nandiyaru	Manimangalam Tank	
8.	Cheyyar	Poondi Reservoir	
9.	Kiliyaru	Cholavaram Lake	
10.	Ongur	Red Hills Lake	
CUDDALORE AND VILLUPURAM DISTRICT			
1.	Varahanadhi	Willington Reservoir	Sathanur Reservoir Project Canal
2.	Malattaru	Vidur Reservoir	Sathanur Reservior Project Right Bank Canal
3.	Pennariaru	Gomuki Reservoir	Pambai Channel - Thirukkoilur Anicut
4.	Gadilam	Manimukthanadhi Reservoir	Malattar Channel - Thirukkoilur Anicut
5.	Vellar	Veeranam Tank	Raghavian Channel - Thirukkoilur Anicut
6.	Coleroon	Perumal Tank	Sithalingamadam Channel -Thirukkoilur Anicut
7.	Tundiaru	-	Vadamarudur Channel - Thirukkoilur Anicut
8.	Pambaiyar	-	Maragadapuram Channel - Ellis Choultry Anicut
9.	Gomuki	-	Alargal Channel - - Ellis Choultry Anicut
10.	Manimukthanandhi	-	Eralur Channel - Ellis Choultry Anicut
11.	Musukundanadhi	-	Kandapakkam Channel - Ellis Choultry Anicut

12.	Vasistanadhi	-	Wellington Reservior Supply Channel (from Toludur Regulator)
13.	Thurijalar	-	Wellington Reservoir Main Canal
14.	Vadavar	-	Wellington Reservoir Low Level Canal
15.	-	-	Pelandorai Anicut Main Channel
16.	-	-	North Rajan Channel – Lower Coleroon Anicut
17.	-	-	South Rajan Channel - Lower Coleroon Anicut
18.	-	-	Kunukkumanniyar Channel - Lower Coleroon Anicut
19.	-	-	Vellar Rajan Channel – Sethiathope Anicut
20.	-	-	Veeranam New Supply Channel - Sethiathope Anicut
21.	-	-	Gomuki Reservoir Main Canal -Sethiathope Anicut
22.	-	-	Manimuthanandhi Reservoir Main Canal –Sethiathope Anicut
23.	-	-	Vridhachalam Anicut Main Channels (North & South)
24.	-	-	Mehamathur Anicut Channel
THANJAVUR NAGAPATTINAM AND THIRUVARUR DISTRICTS			
1.	Cauvery	-	-
2.	Coleroon	-	Grand Anicut Canal
3.	Kodamurutty	-	Lower Coleroon Anicut Canals
4.	Arasalar	-	-
5.	Veerasholan	-	-
6.	Vikramanar	-	-
7.	Vennar	-	-
8.	Vettar	-	-
9.	Vadavar	-	-
10.	Koraiyar	-	-
11.	Paminiar	-	-
12.	Pandavayar	-	-
13.	Vellayar	-	-
14.	Mulliyar	-	-
15.	Ayyanar	-	-

THIRUCHIRAPALLI, PERAMBALUR AND KARUR DISTRICTS			
1.	Cauvery	Ponnaniyar Reservoirs	North Bank Canal - Kattalai Bed Regulator
2.	Amaravathi	-	South Bank Canal - Kattalai Bed Regulator
3.	Coleroon	-	Kattalai Right-Left canal
4.	-	-	Uyyakondan Channel
5.	-	-	Nanganur Channel
6.	-	-	Pullambadi Channel
7.	-	-	Ponniyar Reservior New Canal
PUDUKKOTTAI DISTRICT			
1.	Vellar	-	Grand Anicut Canal
2.	Ambuliyaru	-	-
3.	Angiceru	-	-
4.	Koraiar	-	-
MADURAI AND THENI DISTRICTS			
1.	Vaigai	Vaigai Reservior	Gungun Valley Anicut Canals
2.	Suriliyar	Sathiar Odai Reservoir	Periyar Main Canal
3.	Kottakudiar	-	Manjalar Canal
4.	-	-	Thirumangalam Main Canal
5.	-	-	Sathiar Odai Reservoir Canals
DINDIGAL DISTRICT			
1.	Shanmughanathai	Palar- Porandalar	Palar-Porandalar Main Canal
2.	Koduvanaru	Parappalar	Thadakulam Tank Canals
3.	Manjalaru	Vardamanadhi	Ramasandram Anicut Channel (Posappalam)
4.	Mamdanadhi	Manjaluru	Varadamanadhi Reservoir System
5.	Palar-Porandalar	Kodaikanal Lake	Thirumangalam Main Channel
6.	Parajipalar	Berijam lake	Periyar Main Canals
7.	Vaigai River	Kamarajar Sagar	Murudanadhi Reservoir Left and Right Side
8.	-	-	Mayalaru Reservoir Canals
RAMANATHAPURAM DISTRICT			
1.	Vaigai	R.S.Mangalam Tank	-
2.	Vaipparu	Ramanathapuram Big Tank	-
3.	Vembaru	Kanoor Tank	-
4.	-	Maranadu Tank	-
SIVAGANGAI DISTRICT			
1.	Vaigai	-	Periyar Main Canals
2.	Manimuthar	-	-

VIRUDHUNAGAR DISTRICT			
1.	Vaipparu	Kullur Sandai Reservoir	-
2.	-	Vembokottai Reservoir	-
THIRUNELVELI DISTRICT			
1.	Tamiraparani	Manimuthar	North Kodamelagian Channel
2.	Karuppanadhi	Karuppanadhi	Nadiyunni Channel
3.	Chittiar	Ramanadhi	Kannadian Channel
4.	Servalar	Gatana	Kodayan Channel
5.	Manimuthar	Papanasam	Palayam Channel
6.		Kadamba Tank	Tirunelveli Channel - Ramanadhi Reservoirs
7.		Vijayanarayan-Periyakulam	Tenkal Channel - Ramanadhi Reservoirs
8.		Tenkanai Tank	Vadakal Channel - Ramanadhi Reservoirs
9.			Manimuthar Reservoir Main Channel – Gatana Reservoirs
10.			Arasapattu Channel – Gatana Reservoirs
11.			Vadakuruvaipathu Channel
12.			Radhapuram Channel
TUTICORIN DISTRICT			
1.	Tamiraparanii	Korampalam Tank	Marudur Melakkal Channel
2.	Vaippar	-	South Main Channel of Srivaikundam Anicut
3.	-	-	North Main Channel of Srivaikundam Anicut
KANYAKUMARI DISTRICT			
1.	Kodaiyar	Pechiparai	Padamanabhapuram Puthen Chennel
2.	Valliar	Perunchani	Pandankai
3.	Pazhayaru	Chittar	Thovala Channel
4.	-	-	N.P.Channel
5.	-	-	Pazhayaru
6.	-	-	EK Kal System
7.	-	-	AVM Channel
8.	-	-	Thiruvithancode Canal System
9.	-	-	Pechiparai Left Bank Canal
10.	-	-	Pattanamkal System
11.	-	-	Radhapuram Canal

COIMBATROE DISTRICT			
1.	Bhavani	Parambikulam	Ramakulan Channel
2.	Noyyal	Sholayar	Kallapuram Channel
3.	Amaravathi	Amaravathi	Parambikulam Right Left Canal
4.	Aliyar	Aliyar	Parambikulam Main Canal
5.	-	Poruvanpallar	Bhalli Channel System
6.	-	Thunnokhadam	Vettai Karan Pudur Canal
7.	-	Upper Nivan	Sethumadai Canal
8.	-	Lower Nivan	Udumalaipet Canal
9.	-	Thirumurthi	Aliyar Feeder Canal
10.	-	-	Pollachi Canal
THE NILGIRIS DISTRICT			
1.	Moyar	Upper Bhavani	Avara halla Canal
2.	Bhavani	Emerald	-
3.	Pillur Pallam	Avalanche	-
4.	Kulkathurai Halla	Pillur	-
5.	Dedavahalla	Kunda	-
6.	Avarai Halla	Paikara	-
7.	Paikara	Ooty Halla	-
8.	Amkour Halla	Glenmorgon	-
9.	Singara	Singara	-
10.	-	Parsens valley	-
ERODE DISTRICT			
1.	Cauvery	Bhavani Sagar	Modineri Anaicut Canals
2.	Bhavani	Uppar	Thadappalli Channel
3.	Moyar	Uttamalaikarai Odai	Lower Bhavani Channel
4.	Noyyal	Yaratthupallam	Kalingarayan Anicut Canal
5.	-	Gunderipallam	Upper Reservoirs Canal
6.	-	-	Vattamalai Kaveri Odai Reservoirs Canal
7.	-	-	Uarattupallam Keshmir Canal
8.	-	-	Gunderi Pallam Reservoirs Right and left side – Canals
SALEM AND NAMAKKAL DISTRICTS			
1.	Cauvery	Mettur Reservoir	Mettur Canals (East & West Bank Canals)
2.	Thirumanimuthar	Yercadu Lake	-
3.	Vashishtanadhi	-	-
DHARMAPURI DISTRICT			
1.	Cauveri	Krishnagiri Reservoir	Krishnagiri Reservoir Main Canal
2.	Pennaiyaru	Chinnar Reservoir	Bargur Tank Supply Channel (West

			& East)
3.	Palar	Thunvalahalli Reservoir	Nedungal Anaicut Channel
4.	Chinnar I	Bargur Big Tank	Devanahalli Tank Supply Channel
5.	Chinnar II	Mettur Reservoir	Chinnar Reservoir Right side Channel
6.	Bargur River	Pambar	-
7.	Pambar	-	-
8.	Vaniar	-	-
9.	Chinnaru	-	-
10.	Palaru	-	-
VELORE AND THIRUVANNAMALAI DISTRICTS			
1.	Palar	Sathanur Reservoir	Mahendravadi Channel - Palar Anicut
2.	Poiney	Dusi Mamandur Tank	Kaveri Pak Channel - Palar Anicut
3.	Cheyyar	Kaveripakkam Tank	Sukkiramallur Channel - Palar Anicut
4.	Pennaiyar	-	Dari (Temmampathu) Channel - Palar Anicut
5.	Thurinjilaru	-	Kavi Channel - Palar Anicut
6.	-	-	Govindavadi Channel - Palar Anicut
7.	-	-	Poiney Eastern main Chennel - Palar Anicut
8.	-	-	Poiney Western main Channel - Poiney Anicut
9.	-	-	Sathanur Reservoir Project Canal - Poiney Anicut
10.	-	-	Sathanur Reservoir Project Right bank Canal - Sathanur Reservoir

6.7.2 Ban on setting up of highly polluting industries with in 5 km from rivers (G.O. 127 & 223)

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுச்சூழல் – நீர் ஆதாரங்களின் தன்மையை பாதுகாத்தல் – நீரை அதிக அளவில் மாசுபடுத்தும் தொழிற்சாலைகள் நிறுவுவதை வரன்முறைப்படுத்தல் – நீர் ஆதாரங்களிலிருந்து 5 கி.மீ. தூரம் வரை தொழிற்சாலைகள் நிறுவுவதை தடைசெய்தல் – ஆணைகள் வெளியிடப்படுகின்றன.

சுற்றுப்புறம் & வனத் (சுக 3) துறை

அ.ஆ.நிலை எண் 127 **நாள் 8.5.98**

பார்வை:

1. அரசாணை (நிலை) எண்.1இ சுற்றுப்புறம் & வனத்துறை நாள் 6.2.84
2. அரசாணை (நிலை) எண்.213, சுற்றுப்புறம் & வனத்துறை நாள் 30.3.89

ஆணை:

6.2.84 ஆம் நாளிட்ட சுற்றுப்புறம் மற்றும் வனத்துறை அரசாணை (நிலை) எண்.1 இல் ஆறுகள் , ஓடைகள் மற்றும் அணைகளிலிருந்து 1 கி.மீ.தூரம் வரை எந்தவித அதிக மாசு ஏற்படுத்தும் தொழிற்சாலைகளையும் நிறுவக்கூடாது என்றும் அதிகமாக மாசு ஏற்படுத்தும் தொழிற்சாலைகள் பற்றிய பட்டியலை அனைத்து உள்ளாட்சி நிறுவனங்களுக்கும் தெரிவிக்க வேண்டும் என தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் கேட்டுக் கொள்ளப்பட்டது. 30.3.1989 ஆம் நாளிட்ட சுற்றுப்புறம் மற்றும் வனத்துறை அரசாணை (நிலை) எண் 213இல் குறிப்பிடப்பட்ட அதிக மாசு ஏற்படுத்தும் தொழிற்சாலைகளை சில நீர் ஆதாரங்களிருந்து 1 கி.மீ. தொலைவிற்குள் அமைக்கக்கூடாது என அரசு ஆணையிட்டுள்ளது. (அந்த நீர் ஆதாரங்களின் விவரப் பட்டியலும் அவ்வாணையில் இணைக்கப்பட்டுள்ளது).

2. தோல் தொழிற்சாலைள் தொடர்பாக உச்சநீதி மன்றத்தில் வேலூர் நல மக்கள் மன்றத்தின் மூலமாக தொடுக்கப்பட்ட வழக்கில் உச்ச நீதிமன்றம் வெளியிட்ட உத்தரவிற்கிணங்க அரசாணை (நிலை) எண். 213 சுற்றுப்புறம் வனத்துறை, நாள் 30.3.89ஐ உடனடியாக தீவிரமாக கடைபிடிக்க வேண்டும் எனவும் அரசாணையின் இணைப்பில் கூறப்பட்டுள்ள தொழிற்சாலைகள் எதுவும் புதியதாக தடை செய்யப்பட்ட பகுதியில் நிறுவக்கூடாது எனவும் மேலும் அதற்காக நிறுவப்பட்டுள்ள குழுமம் இத்தொழிற்சாலைகளைப் பற்றி ஆராய்ந்து ஏற்கனவே நிறுவப்பட்டுள்ள தொழிற்சாலைகளை ஆய்வு செய்து தேவைப்படின் வேறிடத்திற்கு மாற்றுமாறும் உத்தரவிடப்பட்டுள்ளது.

3. மக்களிடையே மாசு கட்டுப்பாடு பற்றிய விழிப்புணர்வு ஏற்படுவதற்கு முன் பல தொழிற்சாலைகள் காவிரி, பெண்ணையாறு, பாலாறு, வைகை, தாமிரபரணி மற்றும் அதன் உப நதிகளின் அருகில் தொடங்கப்பட்டுவிட்டன. தொழிற்சாலைகள் வெளியேற்றும் கழிவுநீர் மற்றும் தொழிற்சாலை கழிவுநீர் ஆகியவற்றால் நிலம் மற்றும் நீரின் தன்மை வெகுவாக பாதிக்கப்பட்டுள்ளது. இதனை தடுத்து நிறுத்தாமல் தொடர்ந்து அனுமதிக்கப்படும் போது நீர் வளமும் அதன் தன்மையும், மக்கள் நலமும், பிற உயிர்வாழ் இனங்களின் நலமும் பாதிக்க வாய்ப்புள்ளது. தற்போது தொழிற்சாலைகள் பொது கழிவுநீர் சுத்திகரிப்பு நிலையம் / தனியார் சுத்திகரிப்பு நிலையங்கள் அமைத்து செயல்படும்படி அரசினால் வற்புறுத்தப்பட்டு வருகிறது.

4. தற்போது சில தொழிற்சாகைள் நீர் ஆதாரங்களிலிருந்து, நீரை பயன்படுத்தி தொழில் வளாகங்கள் ஏற்படுத்தப்படுகின்றன. நீரின் தன்மையை சரிவர பாதுகாக்கவும், நீர்வளம், மக்கள் நலம், உயிர்வாழ் இனங்களின் நலன் ஆகியவைகளைக் கருத்தில் கொண்டும், உயர்நீதிமன்றம் மற்றும் உச்ச நீதிமன்றங்களின் தீர்ப்பின் அடிப்படையிலும் இலட்சகணக்கான மக்களின் நலனை கருத்தில் கொண்டு நீர் ஆதாரங்களின் தன்மையை பாதுகாக்கவும், அதே நேரத்தில் தொழில் வளர்ச்சி குன்றாமல் இருக்கவும் நீரை அதிக அளவில் மாசுபடுத்தும் தொழிற்சாலைகள் தொடங்கப்படுவதை வரன்முறைப்படுத்துவது பற்றி ஒரு கொள்கை முடிவு எடுக்க வேண்டிய நிலை அரசிற்கு ஏற்பட்டுள்ளது.

5. மேலே உள்ள பத்தி 4இல் கண்டுள்ள சூழ்நிலைகளின் அடிப்படையில் அரசாணை (நிலை) எண் 213 சுற்றுப்புறம் & வனத்துறை நாள் 30.3.89ஐ சற்று விரிவுப்படுத்தி தீவிரமாக அமல்படுத்த கீழ்கண்டவாறு ஆணையிடுகிறது.

1. அரசாணை (நிலை) எண.213, சுற்றுப்புறம் & வனத்துறை, 30.3.89ஐ முழு அளவில் தீவிரமாக நடைமுறைப்படுத்தப்படல் வேண்டும்

2. தமிழ்நாட்டில் முக்கிய நீர் ஆதாரங்களான காவிரி மற்றும் அதன் உபநதிகள், பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி ஆகிய நதிகளிலிருந்து 5 கி.மீ. தூரத்திற்கள் நீரை அதிக அளவில் மாசுபடுத்தும் எந்த தொழிற்சாலையும் (சிவப்பு வகை) நிறுவப்பட அனுமதி அளித்தல் கூடாது.

3. பிறவகை தொழிற்சாலைகளான ஆரஞ்சு மற்றும் பச்சை தொழிற்சாலைகளுக்கு நீர் ஆதாரங்களிலிருந்து நீரை எடுப்பதற்கு அனுமதி வழங்குவதற்கு முன்னரும், புதிய தொழில் வளாகங்கள் ஏற்படுத்துவதற்கு முன்னரும் முறையே பொதுப்பணித்துறை, தொழில் துறை, ம ற்றும் பிற துறைகள் சுற்றுச்சூழல் மற்றும் வனத்துறையை கலந்து ஆலோசிக்கப்படல் வேண்டும். இனி வரும் காலங்களில் புதியதாக தொடங்கவிருக்கும் தொழிற்சாலைகளுக்கு இந்த நடைமுறை பொருந்தும்.

4. ஆரஞ்சு மற்றும் பச்சை வகை தொழிற்சாலைகள் நிறுவுவதற்கான விதிமுறைகளின் வரைமுறைகள் குறித்து, உள்ளாட்சி நிறுவனங்களுக்கு தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம், தெளிவாக்கி நடவடிக்கை எடுக்கவேண்டும்.

(ஆளுநரின் ஆணைப்படி)

கே.எஸ்.ஸ்ரீபதி
அரசு செயலாளர்

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுச்சூழல் – நீர் ஆதாரங்களைப் பாதுகாத்தல் – 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127க்கு திருத்தம் வெளியிடப்படுகிறது.

சுற்றுபுறம் & வனத் (சுக 3) துறை

அரசு ஆணை (1டி) எண். 223 **நாள்: 2.9.98**

பார்வை:

1. 30.3.89 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 213.
2. 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127.

ஆணை:

30. 3.89 ஆம் ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 213 இல் இன்ன பிறவற்றுடன், இவ்வாணையில் இணைப்பு 1 இல் கண்டுள்ள 14 வகையான தொழி ற்சாலைகள் இவ்வாணையில் இணைப்பு II இல் கண்டுள்ள நீர் ஆதாரங்களிலிருந்து 1 கி. மீட்டர் தூரத்தி ற்குள் நிறுவப்பட அனுமதி அளித்தல் கூடாது என்று ஆணையிடப்பட்டது. பின்னர் 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127 இல் இன்ன பிறவற்றுடன் காவிரி ம ற்றும் அதன் உபநதிகள், பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி ஆகிய நதிகளிலிருந்து 5 கி. மீட்டர் தூரத்திற்குள் நீரை அதிகஅளவில் மாசுப்படுத்தும் எந்த தொழிற்சாலையும் (சிவப்பு வகை) நிறுவப்பட அனுமதி அளித்தல் கூடாது என்று ஆணையிடப்பட்டது.

2. 30.03.89 ஆம் ஆம் நாளிட்ட அரசாணையின் இணைப்பு 1 இல் கண்டுள்ள குறிப்பாக 14 வகைதொழிற்சாலைகள் இந்த 8.5.98 ஆம் நாளிட்ட அரசாணையில் கண்டுள்ள முக்கிய நீர் ஆதாரங்களிலிருந்து 5 கி. மீட்டர் தூரத்திற்குள் அமைக்க அனுமதித்தல் கூடாது என்று அரசு கருதுவதால் 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127க்கு கீழ்க்கண்ட திருத்தத்தை அரசு இவன் வெளியிடுகிறது.

திருத்தம்

8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127 இல் பத்தி 5 துணைப்பத்தி 2 இல் கண்டுள்ள சொற்டொடரான " தமிழ்நாட்டில் முக்கிய நீர் ஆதாரங்களாக காவிரி ம ற்றும் அதன் உபநதிகள், பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி ஆகிய நதிகளிலிருந்து 5 கி. மீட்டர் தூரத்திற்குள் நீரை அதிகஅளவில் மாசுப்படுத்தும் எந்த தொழிற்சாலையும் (சிவப்பு வகை) நிறுவப்பட அனுமதி அளித்தல் கூடாது". இதற்குப் பதிலாக கீழ்க்கண்ட சொற்டொடரைப் படிக்கவும். "தமிழ்நாட்டின் முக்கிய நீர் ஆதாரங்களான காவிரி மற்றும் அதன் உபநதிகள், பெண்ணையாறு, பாலாறு, வைகை மற்றும் தாமிரபரணி நதிகளிலிருந்து 5 கி. மீட்டர் தூரத்திற்குள் 30.3.89 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 213 இன் இணைப்பு 1 இல் கண்டுள்ள 14 வகையான தொழிற்சாலைகள் நிறுவப்பட அனுமதி அளித்தல் கூடாது.

(ஆளுநரின் ஆணைப்படி)

கே. எஸ். ஸ்ரீபதி
அரசுச் செயலாளர்

6.7.3 Industries requiring prior consent of TNPCB to get building license and TNEB power connection (GO. 17 & 111)

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுப்புற சூழல் கட்டுப்பாடு – நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1974 மற்றும் காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1981–இல் கீழ் எந்த தொழிற்சாலை அமைப்பதற்கும் கட்டிடஉரிமம் வழங்குமுன் தொழிலதிபர்களை மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெற்ற ஒப்புதலை காட்டும்படி வலியுறுத்தல் – ஆணை வழங்கப்படுகிறது.

சுற்றுப்புறச் சூழல் கட்டுப்பாட்டு துறை

அரசு ஆணை (நிலை) எண்.17 நாள் 10 ஏப்ரல் 1984
பங்குனி 28–ருத்ரோத்காரி 2014
திருவள்ளுவர் ஆண்டு

ஆணை:

தொழிற்சாலைகளிலிருந்து வெளிப்படும் கழிவுகளை நீரோடை அல்லது கிணறு (அதாவது அரசால் அறிவிக்கப்பட்டுள்ள எல்லைக்குட்பட்டுள்ள ஆறு மற்றும் நீர் நிலைகள் பூமி மற்றும் பூமிக்கடியில் உள்ள நீர், மற்றும் கடல் உட்பட) இவற்றில் கலக்க எதுவாகும்படி வெளியேற்றும் அனைத்து தொழி ற்சாலைகளும் நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு சட்டம் 1974–இன் கீழ் அடங்கும். அத்தொழி ற்சாலைகள் கழிவுகளை வெளியேற்ற தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவைப் (consent) பெற வேண்டும்.

2. இதே போல், காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1981–இன் கீழ் 20 வகை தொழி ற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து இசைவைப் பெற வேண்டும்.

3. ஊர் வளர்ச்சி மற்றும் உள்ளாட்சித் துறையின் 3.2.1983–ம் நாளிட்ட அரசாணை எண்.148–ன்படி, உள்ளாட்சி மன்றங்கள், தொழிலதிபர்கள் தொழிற்சாலைக்கான உரிமத்திற்காக விண்ணப்பிக்கும் போதே தொழிற்சாலையிலிருந்து கழிவுகள் வெளியேற்றப்படுவதற்கு தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து ஒப்புதல் பெற்று அத்துடன் இணைக்க வற்புறுத்த வேண்டும். மேற்கண்ட ஆணையில் உரிமம் என்பது தொழில் உரிமத்தை மட்டுமே குறிக்கிறது. கட்டிட உரிமம் வழங்குமுன் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவைக் கேட்க வேண்டுமா என்று பரிசீலிக்கப்பட்டது. தொழில் உரிமத்திற்காக விண்ணப்பிக்கப்படும்போதே கட்டிடம் கட்டி முடிக்கப்பட்டு இருக்கும். ஆகையால் மாசு கட்டுப்பாடு வாரியம் குறிப்பிட்டுள்ள வரையறைக்குக்கேற்ப குறுகிய காலத்தில் கழிவுகளை சுத்திகரிக்கும் அமைப்பு அல்லது இயந்திரம் ஏற்படுத்த இயலாமலிக்கலாம். எனவே, இத்தொழிற்சாலை அமைக்கத் திட்டமிடும்போதே, அதாவது உள்ளாட்சி மன்றங்களால் கட்டிட உரிமம் வழங்கப்படும் முன்னரே, சில வகை தொழிற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் ஒப்புதலைப் பெறுவது அவசியமாகிறது.

4. ஆகவே, கட்டிட விதிகளின் கீழ், மாநகராட்சிகள், நகரமன்றங்கள் மற்றும் உள்ளாட்சி மன்றங்கள் தொழிற்சாலைகள் கட்டுவதற்கான கட்டிட உரிமத்திற்கான (Building Licence) விண்ணப்பத்தை பெறும்போதே, அல்லது உரிமம் வழங்கும் முன், இவ்வாணையின் இணைப்பில் குறிப்பிட்டுள்ள தொழிற்சாலைகளைப் பொறுத்த வரையில் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெறப்பட்ட ஒப்புதலையும் இணைக்குமாறு கேட்டுக் கொள்ள வேண்டும் என ஆணை பிறப்பிக்கப்படுகிறது.

5. மாசு கட்டுப்பாடுச் சட்டங்களின் கீழ் பழைய மற்றும் புதிய தொழிற்சாலைகள் மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெற வேண்டிய இசைவு, இவ்வாணையால் பாதிக்கப்படமாட்டாது.

(ஆளுநரின் ஆணைப்படி)

ஓம்/–மு.அகமது
ஆணையாளர் மற்றும் செயலாளர்

பெறுநர்

தலைவர், தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம், சென்னை–4.

இணைப்பு

1. சாராயவடி தொழிற்சாலைகள்
2. மிருக மற்றும் தாவரயினப் பொருட்களைப்பதனிடும் தொழிற்சாலைகள் (தோல் பதனிடுதல், ஐவ்வரிசி, பசை, சர்க்கரை மற்றும் பால் பண்ணைத் தொழிற்சாலைகள் உட்பட)
3. உரத் தொழிற்சாலைகள்
4. மரக்கூழ் மற்றும் காகிதம் தயாரிக்கும் தொழிற்சாலைகள் (கையினால் தயாரிக்கப்படும் காகிதங்கள் உட்பட)
5. இராசயனத் தொழிற்சாலைகள்
6. நில எண்ணை (Petroleum) சுத்திகரிப்பு ஆலை
7. துணியாலைகள் (சாயமிடுதல் மற்றும் வெளுப்பாலைகள் உட்பட)
8. இரும்பு உலைக் கூடம் (மின் முலாம் பூசுதல், வெப்ப சுத்திகரிப்பு இயந்திரம் உட்பட)
9. மண்பான்டத் தொழிற்சாலை
10. அனல்மின் நிலையங்கள்
11. சிமெண்ட் தொழிற்சாலைகள்
12. மருந்து தயாரிக்கும் தொழிற்சாலைகள்
13. வர்ணம் மற்றும் மெருகு எண்ணை(Varnish) தயாரிக்கும் தொழிற்சாலைகள்
14. கரைப்பான் (Solvent) தயாரிக்கும் தொழிற்சாலை
15. வாகனங்களுக்கு உதிரி பாகங்கள் தயாரிக்கும் தொழிற்சாலைகள்
16. பூச்சி மற்றும் களைக் கொல்லி மருந்து தயாரிக்கும் தொழிற்சாலைகள்
17. வார்ப்புத் தொழிற்சாலைகள்
18. கல்நார் (Asbestos) தயாரிக்கும் தொழிற்சாலைகள்

ஓம்/– மு.அகமது
ஆணையாளர் மற்றும் செயலாளர்

தமிழ்நாடு அரசு

சுருக்கம்

சுற்றுச்சூழல் கட்டுப்பாடு – நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1974 மற்றும் காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1981–ன்படி தொழிற்சாலைகள் அமைப்பதற்கு முன் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் ஒப்புதல் பெறுதல் – ஆணைகள் வழங்கப்பட்டுள்ளது – திருத்தங்கள் வெளியிடுதல் – ஆணைகள் வெளியிடப்படுகிறது.

சுற்றுச்சூழல் மற்றும் வனத் (சு.சூ.1) துறை

அரசு ஆணை (நிலை) எண்.111 **நாள்: 21.09.2011**

படிக்க:

(a) அரசாணை (நிலை) எண் 17, சுற்றுப்புறச் சூழல் கட்டுப்பாடு துறை, நாள்: 10.04.1984.

மேலும் படிக்க:

(b) கடித எண் 41268/சு1/91–1, சுற்றுச்சூழல் கட்டுப்பாடு துறை, நாள்: 09.04.1992

(உ) தலைவர், தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் அவர்களின் கடித எண். தநாமாகவா/P&D/9798/2006, நாள்:16.03.2009.

(d) தலைவர், தமிழ்நாடு மின்சார வாரியம் அவர்களின் கடித எண்: CE/Comml/EE3/AEE1/F.PCB/D.426/10, Dated: 24.06.2010.

ஆணைகள்:

பார்வை ஒன்றில் படிக்கப்பட்ட அரசாணை நிலை) எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள்: 10.04.1984–ல் நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1974 மற்றும் காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம், 1981–ன் கீழ் தொழிற்சாலை அமைப்பதற்கும் கட்டிட உரிமம் வழங்குமுன் தொழிலதிபர்களை மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெற்ற ஒப்புதலை காட்டும்படியும், கட்டிட விதிகளின் கீழ், மாநகராட்சிகள், நகர மன்றங்கள், உள்ளாட்சி மன்றங்கள், தொழிற்சாலைகள் கட்டுவதற்கான கட்டிட உரிமத்திற்கான (building license) விண்ணப்பத்தைப் பெறும்போதே, அல்லது உரிமம் வழங்கு முன், சாராயவடி தொழிற்சாலைகள் உள்ளிட்ட 17 வகையான தொழிற்சாலைகளைப் பொறுத்தவரையில் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்திடமிருந்து பெறப்பட்ட ஒப்புதலையும் இணைக்குமாறும் ஆணை வெளியிடப்பட்டுள்ளது.

2. பார்வை இரண்டில் படிக்கப்பட்ட அரசு கடிதத்தில் சில கூடுதல் தொழிற்சாலைகளும் சேர்க்கப்பட்டு, அரசாணை (நிலை), எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள்: 10.04.1984–க்கு திருத்தங்கள் வெளியிடப்பட்டது.

3. பார்வை மூன்றில் படிக்கப்பட்ட கடிதத்தில் தமிழ்நாடு மாசு கட்டுப்பாடு வாரிய தலைவர், தனது கருத்துருவில், அரசாணை (நிலை) எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.1984–ல் வெளியிடப்பட்டபோது, தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் தோற்றுவிக்கப்பட்ட ஆரம்ப கால கட்டத்தில், தொழிற்சாலைகள் வகைப்படுத்துவது பற்றி விரிவான முறையில் ஆராயப்படவில்லை என்றும், தற்போது தொழிற்சாலைகள் வகைப்படுத்தப்பட்டு, ஆராய்ச்சி செய்யப்பட்டதில், இணைப்பில் உள்ள சிவப்பு மற்றும் ஆரஞ்சு வகை என்று வகைப்படுத்தப்பட்ட தொழிற்சாலைகளை அரசாணை (நிலை) எண்.17, சுற்றுப்புற ச்சூழல் கட்டுப்பாடுதுறை, நாள்: 10.04.1984–ல் சேர்க்கப்பட திருத்திய ஆணைகள் வெளியிடப்பட வேண்டும் என்றும் கேட்டுக் கொண்டுள்ளார். மேலும், மேற்கண்ட வகைப்படுத்தப்பட்ட தொழிற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் உரிய இசைவாணையை சமர்ப்பித்த பின், மின் இணைப்பினை அளிக்குமாறும், ஏற்கனவே உள்ள தொழிற்சாலைகள் தமிழ்நாடு மாசு கட்டுப்பாடு வாரிய

இசைவாணையினை அளித்த பின் கூடுதல் மின்சாரம் வழங்கவும். தமிழ்நாடு மின்சார வாரியத்திற்கு அறிவுறுத்தவும் கேட்டுக் கொண்டுள்ளார்.

4. தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் மேற்படி கருத்துரு மீது தமிழ்நாடு மின்சார கட்டுப்பாடு வாரியத்தின் கருத்து கேட்கப்பட்டது. தமிழ்நாடு மின்சார வாரியத் தலைவர் பார்வை 4ல் படிக்கப்பட்ட கடிதத்தில், அரசாணை (நிலை) எண்.17. சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84 ல் குறிப்பிட்டுள்ள தொழிற்சாலைகள் தொழில் தொடங்குவதற்காக மின்இணைப்பிற்கான மனு சமர்ப்பிக்கும் போதே தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவாணையினை பெற்று இணைக்குமாறு தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தால் அறிவுறுத்தப்படுகிறது. எனவும், அரசாணை (நிலை) எண்.17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84 ல் தொழிற்சாலையின் ஒருங்கிணைத்த பட்டியல் வெளியிடப்படுமானால், அதனையும் தமிழ்நாடு மின்சார வாரியத்தால் பின்பற்றப்படும் எனவும் தெரிவுத்துள்ளார்.

5. தலைவர், தமிழ்நாடு மின்சார கட்டுப்பாடு வாரியம் அவர்களின் கருத்துரு அரசால் ஆய்வு செய்யப்பட்டு, அரசாணை (நிலை) எண் 17, சுற்றுப்புறச்சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84 க்கு தக்க திருத்தங்கள் வெளியிடக் கோரும் அன்னாரின் கருத்துருவை ஏற்கலாம் என முடிவு செய்யப்பட்டது. அவ்வாறே இணைப்புகளில் (I & II) உள்ள 48 வகையான சிவப்பு தொழிற்சாலைகள் மற்றும் 25 வகையான ஆரஞ்சு தொழிற்சாலைகளை அரசு ஆணை (நிலை) எண். 17, சுற்றுப்புறச் சூழல் கட்டுப்பாடு துறை, நாள் 10.04.84 ல் சேர்த்து அரசு ஆணையிடுகிறது.

(ஆளுநரின் ஆணைப்படி)

ச.வி.சங்கர்
அரசு முதன்மைச் செயலாளர்

இணைப்பு–1

அரசாணை (நிலை) எண் :111 சுற்றுச்சூழல் மற்றும் வனத் (சு.சூ.1) துறை நாள் : 21. 09.2011

CATEGORISATION OF INDUSTIES (RED)

Sl.No	Code	Type	சிவப்பு
1	1004	Aluminium	தாதுவிலிருந்து அலுமினியம் தயாரிக்கும் ஆலை
2	1006	Aromatics Manufacturing Units	வேதி வாசனை உற்பத்தி தொழிற்சாலைகள்
3	1007	Asbestos Products Manufacturing Units	கல் நார் உற்பத்தி தொழிற்சாலைகள்
4	1008	Atomic Power Plant	அணு மின்சக்தி கூடம்
5	1010	Batteries Manufacturing Units	மின்கலன் உற்பத்தி தொழிற்சாலைகள்
6	1012	Bulk Drugs & Pharmaceauticals	மருந்து கலவை தயாரிக்கும் தொழிற்சாலைகள்
7	1014	Cement	சிமெண்ட் தொழிற்வாலைகள்
8	1016	CETPs	பொதுகழிவு நீர் சுத்திகரிப்பு நிலையங்கள்
9	1017	Chemical Units	இரசாயனத் தொழிற்சாலைகள்
10	1018	Chloro Alkali Units	குளோரோ கார தயாரிப்பு தொழிற்சாலைகள்
11	1019	Cogeneration/Captive Power Unit	கோ ஜனரேஷன் / கேப்டிவ் பவர் கூடம்
12	1020	Cake making, coal liquefaction, Coal tar distillation, processing of coal tar distillate or fuel gas marking, coke briquetting (excluding sundrying)	கல் கரி, நிலக்கரி வாயு, தார் வடிப்பான் ஆலை

13	1023	Copper Smelter	தாமிர தாது உருக்கு ஆலை
14	1025	Distillery	சாராய வடி தொழிற்சாலை
15	1028	Dye & Dye intermediates	சாயம் மற்றும் இடைநிலை சாயப் பொருட்கள் தயாரிக்கும் தொழிற்சாலை
16	1030	Edible Oil refinery	உணவு எண்ணெய் சுத்திகரிப்பு ஆலை
17	1032	Electro Plating Units	மின்முலாம் தொழிற்சாலை
18	1034	Fertilizer	உரத் தொழிற்சாலை
19	1035	Fire Crackers Manufacturing Units	பட்டாசு தயாரிப்பு தொழிற்சாலை
20	1037	Forging Units (Excluding Cold Forging)	வடிப்பு அலகுகள் (குளிர்முறை வடிப்பு தவிர)
21	1038	Foundries	வார்ப்பு தொழிற்சாலை
22	1039	Galvanizing Units	துத்தநாக பூச்சு தொழிற்சாலை
23	1042	Glue/Gelatin Manufacturing Units	விலங்கு / தாவர வழி பசை / பிசின் உற்பத்தி தொழிற்சாலை
24	1046	Hazardous Substances storage	அபாயகரமான பொருட்கள் சேமிப்பு
25	1048	Heat Treatment Units (With Cyanide)	வெப்ப கடினப்படுத்துதல் தொழிற்சாலை (சயனைடு வழி)
26	1052	Hot Mix Plant	வெப்ப கலவை கூடம்
27	1059	Integrated Iron and steel Plants	ஒருங்கிணைந்த இரும்பு மற்றும் துருபிடிக்காத இரும்பு தயாரிக்கும் கூடங்கள்.
28	1060	Lead smelting refining and manufacturing of its oxides	காரியம் உருக்குதல், சுத்திகரிப்பு மற்றும் காரிய ஆக்சைடு தயாரித்தல் தொழிற்சாலை.
29	1062	Lubricating Oil / Grease Manufacturing Units	மசகு எண்ணெய் / மசகு களி நெய் தயாரித்தல்
30	1062	Match Units	தீப்பெட்டி தொழிற்சாலை
31	1067	Mosquito Coil Manufacturing Units	கொசுவர்த்தி சுருள் உற்பத்தி தொழிற்சாலை
32	1072	Paint/ Enamel / Varnish Manufacturing Units	பெயிண்ட் / வார்னீஷ் / எனாமல் தொழிற்சாலை
33	1073	Pesticide (Synthetic)	பூச்சிக்கொல்லி (செயற்கை தொகுப்பு முறை) மற்றும் களைக்கொல்லி தயாரிக்கும் தொழிற்சாலை.
34	1074	Pesticide (Formulation Mixing Units)	பூச்சிக்கொல்லி கலவை தொழிற்சாலை
35	1075	Petro Chemical	நில எண்ணெய் வேதி பொருட்கள் (பெட்ரோலிய வேதி பொருட்கள் தொழிற்சாலை .
36	1077	Petroleum Refinery	கச்சா எண்ணெய் சுத்திகரிப்பு ஆலை.
37	1079	Pigments & Intermediates Manufacturing Units	வர்ணம் மற்றும் அதன் இடைநிலைகள் தயாரிப்பு தொழிற்சாலை
38	1083	Pulp and Paper (with Digestor)	காகித கூழ் மற்றும் காகிதம் (செரிப்பான் வசதியுடன்)
39	1090	Sponge Iron	தொன் இரும்பு ஆலை
40	1091	Sugar	சர்க்கரை தொழிற்சாலை
41	1092	Synthetic Detergents Manufacturing Units	டிடர்ஜன்ட் தொழிற்சாலை
42	1093	Synthetic Detergent Manufacturing Units	செயற்கை ரெசின்கள் மற்றும் பசை தயாரிப்பு தொழிற்சாலை

43	1094	Tannery	தோல் பதனிடும் தொழிற்சாலை
44	1095	Tar & Tar Products Manufacturing Units	தார் மற்றும் தார் பொருட்கள் தயாரிப்பு தொழிற்சாலை
45	1097	Textile Dyeing Units	துணி நூல் சாயமிடும் தொழிற்சாலை
46	1101	Units Recovering Lead From Batteries	மின் கலத்திலிருந்து காரீயம் மீளப்பெறும் தொழிற்சாலை
47	1102	Waste Oil Reclamation Units	கழிவு எண்ணெயிலிருந்து எண்ணெய் மீட்டெடுக்கும் தொழிற்சாலை
48	1104	Zinc Smelter	தாதுவிலிருந்து துத்தநாகம் பிரித்தெடுத்தல் தொழிற்சாலை.

இணைப்பு–II

அரசாணை (நிலை) எண் :111 சுற்றுச்சூழல் மற்றும் வனத் (சு.சூ.1) துறை நாள் : 21. 09.2011

CATEGORISATION OF INDUSTIES (ORANGE)

Sl.No.	Code	Type	ஆரஞ்சு
1.	2001	Agar agar manufacturing unit	கடற்பாசி கூழ்மம் தயாரிப்பு
2.	2008	Battery Reconditioning and Repair units	மின்கலம் மறுநிலைப்படுத்துதல் மற்றும் பழுது நீக்கும் தொழிற்சாலை
3.	2012	Bleaching Units	சலவை தொழிற்சாலை
4.	2014	Bone Crushing Mills	எலும்பு நொறுக்கும் ஆலை.
5.	2021	Cashew Nut Processing Units	முந்திரி தொழிற்சாலை
6.	2025	Chemical Mixing/Storage Units	வேதிப் பொருட்கள் கலப்பு மற்றும் சேமிப்பு தொழிற்சாலை
7.	2043	Fish/Cattle/Poultry Feed Unit	மீன்/ கால்நடை/ கோழி/ தீவனம் தயாரிப்பு தொழிற்சாலை
8.	2046	Food and Beverage Units	உணவு மற்றும் பானங்கள் தயாரிப்பு தொழிற்சாலை
9.	2052	Ginning Mills/Waste Cotton Units	ஜின்னிங் ஆலை/ கழிவு பஞ்சு தொழிற்சாலை
10.	2065	Ice Plants/Ice Creams manufacturing unit	ஐஸ்/ஐஸ் கிரீம் தயாரிப்பு தொழிற்சாலை
11.	2066	IMFL Units	சாராயத்தை பாட்டில்களில் அடைக்கும் தொழிற்சாலை
12.	2073	Leather Meal	தோல் கழிவிலிருந்து உரம் தயாரிக்கும் தொழிற்சாலை
13.	2076	Lime Manufacture (Lime Kiln) Units	சுண்ணாம்பு தயாரிப்பு தொழிற்சாலை
14.	2078	Mercerising Units	கார வினையாக்கம் தொழிற்சாலை (Mercerism)
15.	2081	Mineral Water Units	குடிநீர் தயாரிப்பு தொழிற்சாலை
16.	2089	Pharmaceutical Formulation Units	மருந்துகள் கலந்திடும் தொழிற்சாலைகள்
17.	2090	Phosphating/Anodising Units	பாஸ்பேட்டிங் / ஆனடைசிங் தொழிற்சாலை
18.	2099	Pulp & paper Without Digestor	காகித மற்றும் காகித கூழ் தயாரிப்பு (செரிப்பான் வசதி இல்லாதது)
19.	2106	Sago Units	சவ்வரிசி தொழிற்சாலை
20.	2118	Sizing Units	சைசிங் தொழிற்சாலை
21.	2122	Solvent extraction units (edible	உணவு எண்ணெய் தயாரிப்பு ஆலை

		oil)	
22.	2123	Starch units	மாவு பெருட்கள் தயாரிப்பு ஆலை (Starch)
23.	2126	Steel Rolling Mills	இரும்பு உருக்கு ஆலை
24.	2129	Stone/Mineral Crushing Units	கல் / கனிமங்கள் உடைக்கும் ஆலை
25.	2130	Surface Coating/Units Powder Coating/Spray Painting	புறப்பரப்பு பூச்சு/ பவுடர் பூச்சு/ ஸ்பிரே பெயிண்டிங் ஆலை

ச.வி சங்கர்
அரசு முதன்மைச் செயலாளர்

6.7.4 Central Ground Water Authority Notification on regulation of Ground Water Abstraction by Industries

Copy of:-

GOVERNMENT OF INDIA / CENTRAL GROUND WATER AUTHORITY / MINISTRY OF WATER RESOURCES

No.21-4/CGWA/2004-Vol.1-1516 Dated : 1st December 2005

To
The Member Secretary
Tamil Nadu State Pollution Control Board
100, Anna Salai
Chennai-600 032.

Sub : Regulation of Ground Water Abstraction by Industries.

Sir,

Central Ground Water Authority had circulated a list of critical areas on ground water resources consideration vide letter No.21-4/CGWA/2004 dated 14th September, 2004. In continuation to the above, please find enclosed herewith the updated list of the critical areas for consideration. The updated list is the result of the latest resource estimation carried out by Central Ground Water Board in consultation with State Governments. It is requested that new industries / projects as well as the existing industries/projects under expansion falling in updated critical areas may be referred to this authority for considering grant of permission. Such permissions are desired to be made a pre-requisite for industries/projects prior to establishment or existing operation (expansion) as the case may be.

Encl : As above

Yours faithfully,
Sd/- A.K. SINHA
Member Secretary

Copy to :

1. The Regional Director, CGWB, SECR, Chennai for information
2. The Chairman, Central Pollution Control Board, New Delhi for information and necessary action.

Sd/- A.K. SINHA
Member Secretary

List of Critical Areas on Ground Water Resource Considerations (As on 31st October, 2005)

STATE : TAMIL NADU

Sl.No.	District	Critical Areas Blocks/Mandals/Tehsils/Watershed
1.	Coimbatore	Pongalur, Gudimangalam, Karamadai, Palladam, Udumalpet, Annur, Avinashi, Kinathukadavu, Madukarai, P.N. Palayam, Pollachi.N., Pollachi.S., Sarkarsammakkulam, Sultanpet, Sulur, Thondamuthur
2.	Cuddalore	Annagramam, Cuddalore, Kammapuram, Kurinjipadi, Mangalore, Panruti, Vridhachalam, Nallur
3.	Dharmapuri	Pennagaram, Dharmapuri, Harur, Karimangalam, Morappur, Nallampalli, Palacode, Pappireddipatti
4.	Dindigul	Nilakkottai, Palani, Attur-D, Batlagundu, Dindigul, Guzliamparai, Oddanchattram, Reddiarchattiram, Sanarpatti, Thoppampatti, Vadamadurai, Vedasandur
5.	Erode	Perundurai, T.N., Palayam, Bhavanisagar, Satyamangalam, Thalavadi, Ammapet-E, Andhiyur, Nambiyur
6.	Kancheepuram	St. Thomas Mount, Thiruporur, Acharapakkam, Sittamur, Thirukalunkundram, Lattur, Uthiramerur
7.	Karur	Aravakurichi, Krishnarayapuram, Kadavur, Thanthoni
8.	Krishnagiri	Hosur, Kaveripattinam, Shoolagiri, Burgur, Mathur, Uthangarai, Veppanapalli
9.	Madurai	T.Kallupatti, Thirumangalam, Thiruparunkundram, Alanganallur, Chellampatti, Sedapatti, Usilampatti
10.	Nagapattinam	Myladuthurai, Kollidam, Kuttalam, Sembanarkoil, Sirkazhi.
11.	Namakkal	Kabilarmalai, Mohanur, Tiruchengodu, Mallasamudram, Paramathi, Erumaipatti, Namagiripettai, Namakkal, Pallipalayam, Pudduchatram, Rasipuram, Sendamangalam, Vennandur.
12.	Perambalur	Alathur, Perambalur, Veppanthattai, Veppur
13.	Pudukkottai	Thiruvarankulam
14.	Ramanathapuram	Mandapam, Ramanathapuram, Thirupullani
15.	Salem	Kolathur-S, Sankari, Tharamangalam, Kadayampatti, Attur-S, Ayotiapattinam, Gangavalli, Konganapuram, Magudanchavadi, Mecheri, Nangavalli, Omalur, P.N.Palayam, Panamaruthupatti, Salem, Talaivasal, Valapadi, Veerapandi
16.	Sivaganga	S.Pudur

17.	Thanjavur	Madukkur, Thiruvaiyaru, Thiruvonam, Ammapet, Kumbakonam, Thiruppanadal, Thiruvidaimaruthur
18.	Theni	Bodinaikkanur, Cumbum, Theni, Andipatti, Chinnamanur, Myladumparai, Periyakulam, Uthamapalayam
19.	Tiruchirapalli	Musiri, Manaparai, Tattayangarpettai, Thuraiyur, Uppiliyapuram
20.	Tirunelveli	Alankulam, Melneelithanallur, Radhapuram, Sankarankoil, Valliyur
21.	Tiruvallur	Sholavaram, Tiruvallur, Kadambathur, Poonamalee, Ellapuram, Minjur, Pallipattu, R.K.Pet, Thiruvalankadu, Tirutani
22.	Thiruvannamalai	Anakavur, Arni (East), Chetpet, Cheyyar, Vembakkam, Arni (West), Javadi Hills, Chengam, Kalasapakkam, Kilpennathur, Polur, Pudupalayam, Thandarampattu, Thiruvannamalai, Thurinjapuram, Vandavasi
23.	Tiruvarur	Nannilam, Needamangalam, Kodavasal, Valangaiman
24.	Tuticorin	Karunkulam, Tiruchendur, Pudur, Kayathar, Kovilpatti, Ottapidaram, Satankulam, Tuticorin, Udangudi, Vilathikulam
25.	Vellore	Arakonam, Kaveripakkam, Wallajah, Nemili, Alangayam, Anaicut, Arcot, Gudiyatham, Jolarpet, K.V.Kuppam, Kandili, Kanniyambadi, Katpadi, Madanur, Nattrampalli, Pernampet, Sholinghur, Timiri, Tiruppathur, Vellore.
26.	Villupuram	Chinnasalem, Kanai, Thiyagadurgam, Tirukovilur, Kallakurichi, Thirunavalur, Vanur, Gingee, Kandamangalam, Kolianur, Mailam, Marakanam, Melmalaiyanur, Mugaiyur, Olakkur, Rishivandhiyam, Sankarapuram, Tiruvennainallur, Ulundurpet, Vallam, Vikravandi
27.	Virudhunagar	Sivakasi, Srivilliputhur, Watrap, Rajapalayam

6.7.5 Public Works Department, Government of Tamil Nadu Order on Groundwater Extraction

GOVERNMENT OF TAMIL NADU

ABSTRACT

GROUND WATER - Estimation of Ground Water Resources of Tamil Nadu as on, March 2009 - Categorisation of Blocks as Over Exploited, Critical, Semi Critical and Safe for Ground Water Development in Tamil Nadu - Approved – Orders-issued.

PUBLIC WORKS (R2) DEPARTMENT

G.O. (Ms). No. 52 **Dated: 02.03.2012**
Masi-19, Thiruvalluvarandu 2043

Read:

1. G.O.Ms.No.51, Public Works Department, Dated 11.2.2004.
2. G.O.Ms. No. 24, Public Works Department, Dated. 20.1.2011.

Read also:

3. From the Chief Engineer, State Ground and Surface Water Resources Data Centre, Taramani, Chennai- 113, Letter No .DD(G) / 8474/ Assessment / 2011, Dated . 3.8.2011. and 6.9.2011.

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ORDER:

In the G.O. first read above, Government approved the categorization of the Panchayat Union Blocks in Tamil Nadu as Over Exploited, Critical, Semi critical and Safe blocks for Ground Water development as on January, 2003. Government also directed that no schemes should be formulated in Over exploited and Critical blocks and in Semi-Critical and Safe blocks all the schemes should be formulated in consultation with State Ground and Surface Water Resources Data Centre of Water Resources Organization in Public Works Department. The term “scheme” excludes energisation of agricultural pump sets by the Tamil Nadu Electricity Board. Government further directed that appropriate rain water harvesting and artificial recharge schemes be carried out in all the categories of blocks and while carrying out the above schemes priority shall be given to the over exploited and critical blocks so as to avoid further deterioration. In the G.O. second read above, Government constituted a State Level Committee headed by the Secretary to Government, Public Works Department consisting of 18 Members for re-estimation of Ground Water Assessment as on March, 2009 in Tamil Nadu based on the suggestion of the Government of India, Ministry of Water Resources.

2. The Chief Engineer, State Ground and Surface Water Resources Data Centre has stated that the Ground Water resources of the State of Tamil Nadu are being estimated periodically in co-ordination with the Central Ground Water Board, Government of India, SERC, Chennai, based on the Methodology evolved by Ground Water Resources Estimation Committee, 1997 (GEC 97). The assessment previously estimated for Tamil Nadu is as on January 2003 which was approved by the Government of Tamil Nadu in the G.O. first read above is being followed as of now.

3. The Chief Engineer, State Ground and Surface Water Resources Data Centre has also stated that as discussed and decided in the VI th State Level Technical Co-ordination Committee Meeting held on 15th June of 2009, the assessment of State Ground Water Resources as on March 2009 are taken up jointly with Central Ground Water Board and completed. The Technical details involved in the Ground Water Assessment 2009 were placed in the State Level Working Group Meeting under the Chairmanship of the Chief Engineer, State Ground and Surface Water Resources Data Centre, held on 31.12.2010 and got approved. The Ground Water Assessment 2009 was also placed in the "State Level Committee for Re-estimation of Ground Water Resources Assessment" and approved by the said Committee consisting of 18 members under the Chairmanship of the Secretary, Public Works Department , Chennai -9, constituted as per G.O.(Ms). No. 24,Public Works Department, dated 20.1.2011 held on 10.2.2011.

4. The Chief Engineer, State Ground and Surface Water Resources Data Centre has also pointed out that; the National as well as the State Water policies emphasized the periodic assessment of Ground Water Resources. So far once in five years the assessment is being done. The time gap between the two consecutive assessments viz., January 2003 and March 2009 is more than 5 years and the present scenario on Resource Potential and categorization have also changed since then.

5. The Chief Engineer, State Ground and Surface Water Resources Data Centre has also stated that as per the orders issued in the G.O.Ms.No.51, Public Works Department , dated 11.2.2004 no scheme is permitted in **Over Exploited and Critical Blocks of Tamil Nadu.**

6. The Chief Engineer, State Ground and Surface Water Resources Data Centre has also furnished abstract of the categorization blocks as on March 2009 as below:-

Sl.No.	Categorisation of Blocks	As on March 2009
1.	Over Exploited Blocks	138 +1
2.	Critical Blocks	33
3.	Semi Critical Blocks	67
4.	Safe Blocks	136
5.	Saline / Poor quality blocks	11
6.	Total Blocks	385 +1

He has also stated that in the above total, 385 denotes, 385 blocks of Tamil Nadu and plus 1 denotes the Chennai District which was taken up as one " assessment unit" since Chennai District is not bifurcated into blocks.

7. The Chief Engineer, State Ground and Surface Water Resources Data Centre has submitted the following proposals for issuing of necessary Government Order for the notification of blocks based on the categorization made as on March 2009 for all the District of Tamil Nadu.

1) All the Over Exploited and Critical Blocks as on March 2009 Assessment may be declared as Notified Blocks (A Category – Stage of Groundwater extraction is 90% and above) and all the Semi critical and Safe Blocks may be declared as

Notified Blocks (B Category – Stage of Groundwater extraction is below 89 %).

2) While implementing all the Schemes including Minor Irrigation schemes effectively, the Government may direct that no schemes should be formulated in over exploited and critical blocks - "Notified Blocks – A category – (Stage of Groundwater extraction is 90% and above)" and in the case of Semi Critical and Safe blocks on "Notified Blocks – B category- (Stage of Groundwater extraction is below 89%)", all the schemes should be formulated through State Ground and Surface Water Resources Data Centre of Water Resources Department and the Chief Engineer / State Ground and Surface Water Resources Data Centre will issue the Ground Water Clearance. (ie. NOC from Chief Engineer, State Ground and Surface Water Resources Data Centre, Water Resources Department).

3)The term "Schemes" excludes energisation of Agricultural pump sets by the Tamil Nadu Electricity Board. The present order may also exclude the Ground Water drawal for a). Domestic purpose by individual household, b). Domestic Infrastructure project (Housing), c).Government's Drinking Water Supply Schemes and d). non water based industries, (i.e.- the industries which do not require and use water, either as raw material or for other processing). However, the domestic use of water by this non water based industries will be permitted by the Chief Engineer / State Ground and Surface Water Resources Data Centre based on hydro geological conditions. (i.e. NOC from Chief Engineer, State Ground and Surface Water Resources Data Centre, Water Resources Department, Chennai). The list of non water based industries will be issued by the Industries Department of Government of Tamil Nadu separately.

4). Appropriate rain water harvesting and Artificial recharge schemes should be carried out in the categories viz , Over exploited , Critical , Semi Critical and Safe blocks of TamilNadu. While carrying out the above schemes, priority should be given to marginal quality and bad quality areas so as to avoid further deterioration.

5). All the schemes and proposals based on Ground Water will have to adhere to the Government orders and conditions as at Annexure – II of this proposal.

The Chief Engineer, State Ground and Surface Water Resources Data Centre has therefore requested necessary approval of the Government on Groundwater Assessment as on March 2009.

8. The Government have decided to approve the above proposal of the Chief Engineer, State Ground and Surface Water Resources Data Centre. Accordingly, the Government approve the categorization of over-exploited, critical, semi-critical and safe blocks as detailed in the Annexure –I of this order. All the over exploited and critical blocks are notified as A category – where Stage of Ground water extraction is 90% and above and all the Semi critical and Safe blocks notified as B Category- where Stage of Ground water extraction is below 89%.

9. The Government further direct that no schemes should be formulated in over exploited and critical blocks “Notified as – A category blocks. In Semi Critical and Safe blocks “Notified as B category blocks, all the schemes should be formulated through State Ground and Surface Water Resources Data Centre of Water Resources Department and the Chief Engineer / State Ground and Surface Water Resources Data Centre will issue “No Objection Certificate” for Ground Water Clearance.

10. The Government further direct to exclude the Ground Water drawal for domestic purpose by individual household; domestic infrastructure project (Housing); Government’s Drinking Water Supply Schemes and; non water based industries, (i.e. – the industries which do not require and use water, either as raw material or for other processing). The Chief Engineer, State Ground and Surface Water Resources Data Centre will permit for domestic use of water by this non water based industries by issuing “No Objection Certificate” based on the hydro geological conditions. The list of non water based industries will be issued by the Industries Department of Government of Tamil Nadu separately.

11. The Government further direct that appropriate rain water harvesting and Artificial Recharge Schemes shall be carried out in the categories viz. Over exploited, Critical, Semi Critical and Safe blocks of Tamil Nadu. While carrying out the above schemes, priority shall be given to marginal quality and bad quality areas so as to avoid further deterioration.

12. The Government further direct that all the schemes and proposals based on Ground Water will have to be adhered the Government orders and conditions as detailed in the Annexure –II of this order.

(BY ORDER OF THE GOVERNOR)

M.SAI KUMAR
SECRETARY TO GOVERNMENT

ANNEXURE - I to G.O .Ms.No.:52, PWD dt 2.3.2012

CATEGORISATION OF BLOCKS BASED ON THE ASSESSMENT OF DYNAMIC GROUNDWATER RESOURCES AS ON MARCH 2009.

OVER-EXPLOITED [Greater than 100%]		CRITICAL [Between 90 and 100%]		SEMI CRITICAL [70 and 90%]		SAFE [Less than 70%]		OTHERS (Poor Quality / Saline)	
ARIYALUR (6 Blocks)									
						1	Andimadam		
						2	Ariyalur		
						3	Jayamkondam		
						4	Sendurai		
						5	Thirumanur		
						6	T. Palur		
CHENNAI DISTRICT									
1	Chennai District								
COIMBATORE DISTRICT (12 Blocks)									
1	Annur			1	Kinathukadavu	1	Anamalai		
2	Madukarai			2	Pollachi North	2	Karamadai		
3	Pollachi South			3	Sultanpet				
4	P.N. Palayam			4	Sulur				
5	Sarkarsamakulam								
6	Thondamuthur								
CUDDALORE DISTRICT (13 Blocks)									
1	Cuddalore			1	Annagramam	1	Kattumannarkoil		
2	Kammapuram			2	Melbhuvanagiri	2	Keerapalayam		
				3	Panruti	3	Kumaratchi		
						4	Kurinjipadi		
						5	Mangalore		
						6	Nallur		
						7	Portonova		
						8	Vridhachalam		
DHARMAPURI DISTRICT (8 BLOCKS)									
1	Dharmapuri			1	Pennagaram				
2	Harur								
3	Nallampalli								
4	Palacode								
5	Karimangalam								
6	Morappur								
7	Pappireddipatti								
DINDIGUL DISTRICT (14 BLOCKS)									
1	Attur			1	Natham	1	Kodaikanal		
2	Vattalagundu			2	Palani				
3	Dindigul								
4	Guziliamparai								
5	Nilakkottai								
6	Oddanchattiram								
7	Reddiarchattiram								
8	Sanarpatti								
9	Thoppampatti								
10	Vadamadurai								
11	Vedasandur								

ERODE DISTRICT (14 BLOCKS)									
		1	Nambiyur	1	Ammapet	1	Bhavani		
				2	Andhiyur	2	Chennimalai		
				3	Bhavanisagar	3	Gobichettipalayam		
				4	Erode	4	Kodumudi		
				5	Modakurichi	5	Satyamangalam		
				6	Perundurai	6	T.N.Palayam		
						7	Thalavadi		
KANCHEEPURAM DISTRICT (13 BLOCKS)									
1	Thirukalukundram	1	Lattur	1	Acharapakkam	1	Kunrathur		
2	Wallajabad			2	Kancheepuram	2	Maduranthagam		
3	Uthiramerur			3	Kattankulathur	3	Sriperumbudur		
				4	Sittamur	4	St.Thomas Mount		
						5	Thiruporur		
KANYAKUMARI DISTRICT (9 BLOCKS)									
						1	Agastheeswaram		
						2	Killiyur		
						3	Kurunthancode		
						4	Melpuram		
						5	Munchirai		
						6	Rajakkamangalam		
						7	Thiruvattar		
						8	Thovalai		
						9	Thucklay		
KARUR DISTRICT (8 BLOCKS)									
1	Aravakurichi	1	Krishnarayapuram	1	Karur	1	Kulithalai		
2	K.Paramathy					2	Thogamalai		
3	Kadavur								
4	Thanthoni								
KRISHNAGIRI DISTRICT (10 BLOCKS)									
1	Bargur	1	Shoolagiri	1	Kaveripattinam	1	Hosur		
2	Mathur			2	Kelamangalam	2	Thalli		
3	Krishnagiri								
4	Uthangarai								
5	Veppanapalli								
MADURAI DISTRICT (13 BLOCKS)									
1	Chellampatti	1	Thirumangalam	1	Alanganallur	1	Kottampatti		
2	Kallikudi			2	Thiruparankundram	2	Madurai (East)		
3	Sedapatti					3	Madurai (West)		
4	T.Kallupatti					4	Melur		
5	Usilampatti					5	Vadipatti		
NAGAPATTINAM DISTRICT (11 BLOCKS)									
1	Kollidam	1	Sirkazhi					1	Keelaiyur (Saline)
2	Kuttalam							2	Kilvelur (Saline)
3	Myladuthurai							3	Nagapattinam (Saline)
4	Sembanarkoil							4	Thalainaiyar (Saline)
								5	Thirumarugal (Saline)
								6	Vedaranyam (Saline)
NAMAKKAL DISTRICT (15 BLOCKS)									
1	Erumaipatti	1	Mallasamudram	1	Kabilarmalai	1	Elachipalayam		
2	Namagiripettai	2	Namakkal	2	Mohanur	2	Kolli Malai		
3	Puduchatram			3	Pallipalayam				

4	Rasipuram			4	Paramathi				
5	Sendamangalam			5	Tiruchengodu				
6	Vennandur								
THE NILGIRIS DISTRICT (4 BLOCKS)									
						1	Coonoor		
						2	Gudalur		
						3	Kotagiri		
						4	Udhagamandalam		
PERAMBALUR DISTRICT (4 BLOCKS)									
1	Alathur								
2	Perambalur								
3	Veppanthattai								
4	Veppur								
PUDUKOTTAI DISTRICT (13 BLOCKS)									
				1	Karambakudi	1	Annavasal		
				2	Thiruvarankulam	2	Aranthangi		
				3	Viralimalai	3	Arimalam		
						4	Avudiarkoil		
						5	Gandharvakottai		
						6	Kunnandarkoil		
						7	Manamelkudi		
						8	Ponnamaravathi		
						9	Pudukkottai		
						10	Thirumayam		
RAMANATHAPURAM DISTRICT (11 BLOCKS)									
						1	Bogalur		
						2	Kamuthi	1	Kadaladi (Poor Quality)
						3	Mudukulathur	2	Thiruvadanai (Poor Quality)
						4	Mandapam	3	Thirupullani (Poor Quality)
						5	Nainarkoil		
						6	R.S.Mangalam		
						7	Ramanathapuram		
						8	Paramakudi		
SALEM DISTRICT (20 BLOCKS)									
1	Attur	1	P.N. Palayam	1	Edapadi	1	Kolathur		
2	Ayotiapattinam	2	Magudanchavadi	2	Kadayampatti	2	Yercaud		
3	Gangavalli	3	Mecheri	3	Salem				
4	Panamaruthupatti			4	Sankagiri				
5	Thalaivasal			5	Tharamangalam				
6	Valapadi								
7	Veerapandi								
8	Konganapuram								
9	Nangavalli								
10	Omalur								

SIVAGANGAI DISTRICT (12 BLOCKS)									
						1	Kaliyarkoil		
						2	Sivagangai		
						3	S.Pudur		
						4	Devakottai		
						5	Illyangudi		
						6	Kallal		
						7	Kannankudi		
						8	Manamadurai		
						9	Sakkottai		
						10	Singampunari		
						11	Thiruppathur		
						12	Thiruppuvanam		
THANJAVUR DISTRICT (14 BLOCKS)									
1	Ammapet			1	Pattukottai	1	Budalur		
2	Kumbakonam			2	Thanjavur	2	Madukkur		
3	Orathanadu								
4	Papanasam								
5	Peravoorani								
6	Sethubhavachattiram								
7	Thiruppanandal								
8	Thiruvaiyaru								
9	Thiruvidaimaruthur								
10	Thiruvonam								
THENI DISTRICT (8 BLOCKS)									
1	Andipatti	1	Bodinaickanur						
2	Uthamapalayam	2	Chinnamanur						
		3	Mayiladumparai						
		4	Periyakulam						
		5	Cumbum						
		6	Theni						
TIRUCHIRAPPALLI DISTRICT (14 BLOCKS)									
1	Manachanallur			1	Lalgudi	1	Andanallur		
2	Manapparai			2	Marungapuri	2	Pullambadi		
3	Manikandam					3	Thiruverumbur		
4	Musiri								
5	Thatthayangarpettai								
6	Thottiam								
7	Thuraiyur								
8	Uppiliyapuram								
9	Vaiyampatti								
TIRUNELVELI DISTRICT (19 BLOCKS)									
1	Kuruvikulam	1	Keelapavoor	1	Alankulam	1	Ambasamudram		
2	Melneelithanallur	2	Radhapuram	2	Kadayanallur	2	Cheranmadevi		
3	Sankarankoil			3	Vasudevanallur	3	Kadayam		
4	Valliyur					4	Kalakkadu		
						5	Manur		
						6	Nanguneri		
						7	Palayamkottai		
						8	Pappakudi		
						9	Senkottai		
						10	Thenkasi		
TIRUPPUR DISTRICT (13 BLOCKS)									
1	Avinasi	1	Palladam	1	Gudimangalam	1	Dharapuram		
2	Pongalur			2	Kangeyam	2	Madathukkulam		
				3	Kundadam	3	Uthukkuli		
				4	Mulanur				
				5	Tiruppur				
				6	Udumalpet				
				7	Vellakoil				

TIRUVALLUR DISTRICT (14 BLOCKS)									
1	Ellapuram			1	Poonamalee	1	Gummudipoondi		
2	Kadambathur					2	Poondi		
3	Minjur					3	Madhavaram		
4	Pallipattu					4	Sholavaram		
5	R.K.Pet					5	Thiruvalankadu		
6	Thiruttani					6	Tiruvallur		
						7	Villivakkam		
TIRUVANNAMALAI DISTRICT (18 BLOCKS)									
1	Chengam	1	Kalasapakkam	1	Anakavur				
2	Chetpet	2	Kilpennathur	2	Arni (East)				
3	Javadi Hills	3	Pudupalayam	3	Cheyyar				
4	Polur	4	Thurinjapuram	4	Pernamallur				
5	Thandarampattu			5	Thellar				
6	Thiruvannamalai			6	Arni (West)				
7	Vandavasi								
8	Vembakkam								
TIRUVARUR DISTRICT (10 BLOCKS)									
1	Kodavasal			1	Thiruvarur	1	Koradachery	1	Thiruthuraipoondi (Poor Quality)
2	Nannilam					2	Kottur	2	Muthupet (Poor Quality)
3	Valangaimaan					3	Mannargudi		
						4	Needamangalam		
THOOTHUKUDI DISTRICT (12 BLOCKS)									
1	Ottapidaram	1	Thoothukudi	1	Kayathar	1	Alwarthirunagari		
2	Sathankulam			2	Kovilpatti	2	Karunkulam		
3	Udangudi					3	Pudur		
						4	Srivaikundam		
						5	Tiruchendur		
						6	Vilathikulam		
VELLORE DISTRICT (20 BLOCKS)									
1	Anaicut	1	Alangayam	1	Wallajah	1	Arakonam		
2	Arcot	2	Nemili			2	Kaveripakkam		
3	Gudiyatham	3	Timiri						
4	Jolarpet								
5	K.V.Kuppam								
6	Kandili								
7	Kaniyambadi								
8	Katpadi								
9	Madanur								
10	Nattrampalli								
11	Pernampet								
12	Sholinghur								
13	Thiruppathur								
14	Vellore								
VILLUPURAM DISTRICT (22 BLOCKS)									
1	Gingee	1	Kandamangalam	1	Mailam	1	Chinnasalem		
2	Kanai			2	Sankarapuram	2	Kallakurichi		
3	Kolianur			3	Vanur	3	Kalrayan hills		
4	Marakanam					4	Mugaiyur		
5	Melmalaiyanur					5	Rishivandhiyam		
6	Olakkur					6	Thirunavalur		
7	Thiyagadurgam					7	Tirukovilur		
8	Ulundurpet					8	Tiruvennainallur		
9	Vallam					9	Vikravandi		
VIRUDHUNAGAR DISTRICT (11 BLOCKS)									
1	Rajapalayam	1	Sivakasi	1	Virudhunagar	1	Aruppukkottai		
		2	Srivilliputhur			2	Kariappatti		
		3	Vembakottai			3	Narikudi		

		4	Watrap			4	Sattur		
						5	Tiruchuli		

ANNEXURE-II to G.O.Ms.No.52, Public Works Department, dated 2.3.2012.

1. G.O.(Ms). No. 1766, Public Works Department , dated 31.10.1988.

2. G.O.(Ms). No. 213, E&F (EC-1) Department , dated 30.03.1989.

3. G.O.(Ms). No. 281, Public Works Department , dated 3.4.1996.

4. G.O.(Ms). No. 127, E&F (suga -3) Department , dated 8.5.1998.

1. Other spacing norms which are approved in the State Level Committee for Re-Estimation of Ground Water Assessment under the Chairmanship of the Secretary to Government / Public Works Department, held on 10.2.2011 and adhering by State Ground and Surface Water Resources Data Centre, the distance between two wells such as (1) Two dug wells – 150m; (2) Two shallow tube wells – 175m; (3) Two filter points – 175m; (4) Two dug cum bore wells – 175m; (5) Two medium tube wells – 600m; (6) Two deep tube wells-600m; (7) Medium tube well and deep tube well – 600m; (8) Shallow tube well & medium tube well – 387.5m; (9) Dug well and shallow tube well – 162.5m; (10) Dug well & medium tube well – 375m; (11) Dug well and deep tube well 375m are to be adhered. The depth of shallow tube well / filter point is, depth upto 100m below ground level, medium tube well depth is 100 to 250m below ground level and deep tube well is depth more than 250m.

2. Other technical circulars issued by the Chief Engineer / State Ground and Surface Water Resources Data Centre in this regard as and when, are to be adhered.

M.SAI KUMAR
SECRETARY TO GOVERNMENT

6.8 SITING CRITERIA FOR STONE CRUSHING UNIT

Norms for the location of stone crushing industries in view of the orders of the appellate authority constituted under water/air acts.

B.P.MS.No.4 Dated : 02.07.2004

Read :

(a) B.P.Ms.No.142, dated 10.10.19856.

(b) B.P.Ms.No.609, dated 9.12.1992.

(c) B.P.Ms.No.48, dated 9.9.1998.

(d) Board's Resolution No.204-1-25, dated 22.6.2004.

ORDER

Tamil Nadu Pollution Control Board, in its proceedings B.P.Ms.No.142, dated 10.10.1986 fixed norms for location of stone crushing units based on studies conducted by the Central Pollution Control Board and subsequently fixed revised norms for location of stone crushing units in its proceedings, B.P.Ms.No.609, dated 9.12.1992 based on the report of the Committee constituted by the Tamil Nadu Pollution control Board, dated 3.7.1991 under the orders of the High Court of Madras, dated 30.11.1990 as follows :

1. No stone crushers units should be located within 500 M from any NH or SH or primary residential area or mixed residential area of places of public and religious importance.
2. The minimum distance between two stone crushers should be 1 K.M to avoid dust pollution influence of one over the other.

Subsequently, the Board received representations from various Associations of stone crushing units in Tamil Nadu to consider relaxation in the above norms as the units have installed air pollution control measures. Hence, the Board entrusted a study to the National Environmental Engineering Research Institute (NEERI), Nagpur to assess the performance of the air pollution control measures provided by the stone crushing units, to assess the dust emission from the industry and to arrive at the optimum distance from the National / State highways and from the residential areas. The NEERI conducted the study during September and October 1997 and April and May 1998 and submitted a report with recommendations.

The Board in its Proceedings, B.P.Ms.No.48, dated 9.9.1998 decided to accept the recommendations of the NEERI and decided to adopt the norms except those for residential area. The Board decided that in respect of residential area, no stone crushing industries are to be allowed to operate within 500 meters from residential area as per the orders of Hon'ble Supreme Court of India, dated 25.4.1995 in the Civil Appeal No.10732/1995.

Subsequently, in the order, dated 10.5.1999 in SLP(C) No.13564/1998, the Hon'ble Supreme Court of India issue directions that the existing stone-crushers, who have valid licenses, are permitted to carry out their work subject to the complying with the conditions of the NEERI's Report. In another order dated 8.8.2000 in SLP(C) No.13564/1998, the Hon'ble Supreme Court of India has

clarified that the earlier decision of the Supreme Court is confined to the facts of that case and will not stand in the way of the pollution control Board / State Government reconsidering amendment of Notification and or Resolution or Rule as the case may be and option is given to take into consideration the earlier expert committee report, dated 3.7.1991 and also the NEERI Report for framing appropriate Rule.

The subject of revision of norms for the location of stone crushing units was placed before the Board at its meeting held on 22.12.2000. The Board in its Resolution No.182-3-9, dated 22.12.2000 decided to adopt the NEERI recommendations in case of existing stone crushing industries and in case of new stone crushing industries, it should be located atleast 500 metres away from habitations as per recommendations of the Expert Committee.

The details as furnished in the Agenda for the Board meeting held on 22.12.2000 and the decision taken by the Board have been filed before the Hon'ble Supreme Court of India as an Affidavit dated 3.1.2001 by the Board in SLP (Civil) No.13564 of 1998 in which the Hon'ble Supreme Court of India issued final order, dated 25.9.20001. Regarding the final order, the Advocate on Record has clarified that the order of the Supreme Court is not strictly applicable to stone crushing units and the norms for existing and new stone crushers can be enforced as notified by the Board and as submitted by it in its affidavit, dated 3.1.2001

The Board has been adopting the norms for new stone crushing units as per B.P.Ms.No.609, dated 9.12.92, and for existing stone crushing units, the norms stipulated in B.P.Ms.No.48, dated 9.9.90, considering the fact that the above B.P. dated 9.9.98 is issued based on the studies on the existing stone crushing units who have represented to relax norms stipulated in B.P.Ms.No.609, dated 9.12.92. Regarding new stone crushing units the B.P.Ms.No.48, dated 9.9.98 has strictly ordered that no stone crushing industries are to be allowed to operate within 500 metres from residential area. But BP was silent on the distance criteria for new stone crushing units from NH/SH and hence the distance criteria for new stone crushing units fixed in B.P.Ms.No.609, dated 9.12.92 continued to be adopted by the Board in practice.

However, the Appellate Authority in its order, dated 3.3.04 in the appeal filed by M/s.JVM Blue Metals, Thiruvannamalai has ordered as follows.

"It is clear from the proceedings that new norms was fixed for existing and proposed or new units and it was never the intention to maintain 1992 proceedings for any purpose. It is clear from para 3 of the proceedings". Appellate Authority has set aside the Board's rejection order and directed the Board to consider the application on the basis of B.P. dated 9.9.98. In this case the Board had rejected the issue of consent to a stone crushing units since it is located within 65 m from State highways thus violating the distance criteria of 500 m from state highways fixed in B.P.Ms.No.609, dated 9.12.92.

The ambiguity in B.P.Ms.No.48, dated 9.9.98 by which it was not clearly specified that this relaxation is applicable to existing stone crushing units only has resulted in this situation by allowing the mushrooming of new stone crushing units near the NH/SH. This will affect the travelling public in the NH/SH due to deep penetration of dust from stone crushing units into their eyes / lungs due to

high vehicular speed and the dust will affect the visibility of motorists also.

In order to remove the lack of clarify the matter is again brought to the Board to clearly fix the norms for existing and new / proposed stone crushers and the air pollution control measures without ambiguity

1.0 Criteria for existing stone crushing units: (as recommended by NEERI)

1.1 Distance Criteria

Sl. No.	Type of clusters	Distance between crusher / cluster of crushers and habitations / NN or SH	Green belt area at the periphery
1.	Single crusher	50 mts.	10 mts.
2.	10 crushers	150 mts.	30 mts.
3.	25 crushers	250 mts.	50 mts.
4.	50 crushers	300 mts.	100 mts.

Note :-

(a) For single crusher, the distance is to be measured from crusher boundary.

(b) In the case of cluster of crushers the distance is to be measured from the last crusher boundary.

(c) The crusher boundary implies the line joining all the emission sources in the crushing unit such as jaw crusher, conveyer belt, head, rotary screen etc.

1.2 If the distance between two existing crushers is more than 100 metres, it will be considered as a single crusher. If the distance between the existing crusher boundaries is less than 100 metres, it will be considered as a cluster.

1.3 Existing crushers, which are near the National or State highways and not meeting the distance criteria should provide a 15 to 20 feet wall on all the three sides (parallel to National / State highways and both sides) and upto the length to be stipulated on the alignment of road and boundary of the crusher in addition to the air pollution control measures.

Explanation

Existing stone crushing units are those which have valid licenses on the date of Supreme Court order namely 10.05.1999.

2.0 Criteria for new / proposed stone crushing units

2.1 No new / proposed stone crushers should be located within 500 metres from any National highways or State highways or 'inhabited site' or places of public and religious importance.

Note :-

'Inhabited site' shall mean a village site or town site or a house site as referred to in the revenue records or a house site or layout approved by a Local Body or Town or Country or Metropolitan Planning Authority, where the said Body or Authority is created under a statue and empowered to approve such an area as a house site or layout area (as desired in Rule 35 of Tamilnadu Minor Minerals Concession Rules, 1959).

2.2 The minimum distance between new / proposed stone crushers should be 1 km to avoid dust pollutional influence of one over the other.

2.3 Green belt development:

The stone – crushing unit shall provide adequate green belt cover around the periphery as suggested by the Board depending on site and meteorological conditions.

3.0 Air pollution control measures

The existing and new / proposed stone crushing units should provide dust containment and dust suppression systems suggested by National Productivity Council as furnished in Annexure – I and should also adhere to the recommendations furnished in NEERI Report (vide Annexure – II).

The above consolidated proposal of earlier B.P.Ms.No.609, dated 9.12.1992 and B.P.Ms.No.48, dated 9.9.98 is contemplated to make clear the decisions of the Board regarding the siting criteria of the existing and new / proposed stone crushing units and hence this proposal may take effect from 10.5.1999, the date of Supreme Court order defining existing stone crushing units.

The above proposal was placed before the Board at its meeting held on 22.6.2004. The Board in its Resolution No.204-1-25, dated 22.6.2004 decided to approve the siting criteria of the existing and new proposed stone crushing units with date of effect from 10.5.99, the date of the Hon'ble Supreme Court order, defining the existing stone crushing units.

Sd/-

For Member Secretary

ANNEXURE – I

Recommended dust containment and dust suppression system by National Productivity Council

Dust containment system

Dust containment system comprises of building enclosures over the major dust emission sources so as to contain the dust emission sources so as to contain the dust within the housing. Only rotary screen is considered for dust containment enclosures. It is not recommended to enclose the jaw crusher as frequent manual intervention and attention is required.

Salient features of dust containment system

- Enclosures to be constructed of G.I. sheets (1.66 mm and 1.25 mm thick) and supported on angle structures so that it can withstand strong wind.
- Roof to be given a gradual slope / curvature so as to prevent accumulation of water.
- Material transfer point such as hopper bottom / product unloading conveyor to be covered suitably to prevent dust release into the atmosphere.
- Locations where complete enclosures are not possible such as openings in jaw crushers side and bottom, are to be covered suitably (GI sheets / rubber flap or any other material) to prevent dust release into the atmosphere.
- Telescopic chutes are to be provided at product unloading conveyor to prevent dust release into the atmosphere during free fall off material from height. These chutes can be adjusted in length according to size of the heap.
- Openings in the enclosures over shaft motor driver conveyor belts etc., are to be covered with rubber flaps (wherever possible) to prevent release of dust.
- Openings fitted with doors are to be provided for inspection and access in the enclosures.

Dust suppression system

Effective housing at location such as material transfer points cannot be constructed because of resultant obstruction to material flow. Since dust generation from these points are quite substantial, dust suppression system, comprising of spraying of fine water mist through special nozzles, should be carried out over the dust generation sources to suppress the dust cloud.

There are two types of water spray systems (a) water spray on the generated dust cloud and (b) water spray directly on the material. The quantity of water spray should be sufficient to suppress dust without affecting the quality of the product. Too much water spray on the material will wet the dust completely and result in zero emission but the wet material is difficult to screen and has not market acceptance.

A water pump is required to spray the water at a minimum pressure of 2 to

4 kg/cm^2. The water consumption depends on type of nozzle chosen for application.

The various application points are :

- At raw stones unloading site (optional)
- At feed point of raw stones into jaw crusher
- At discharge of the screened stone fractions from rotary screens into respective conveyor belief.
- Stone dust discharge from conveyor on stock pile (optional).

ANNEXURE – II

Recommendations in NERRI's final report on "assessment of dust emission from stone crushing industry" in June 1998

1. Periodical cleaning of water spray nozzles should be carried out to avoid choking.
2. Fine dust accumulated in the crushing area should be periodically cleaned and the dumps should be covered with tarpaulins to arrest erosion by wind.
3. The drop height of the processed material should be kept at a minimum during loading and unloading.
4. Conveyor chutes should be provided at the discharge points.
5. There should be bilane road system to approach the crushers.
6. The approach road should be properly laid with tar and concrete and should be sprayed with water. Similarly, the approach roads to individual crusher should be made in good condition and watered.
7. Within the crusher, a minimum distance of 20 metres should be made for roads.
8. The green belt will restrict the spread of particulate matter and trees should be evergreen high foliage type like neem, tarmarind, gold mohar, fire of the forest and any other local varieties are recommended. Cash crops like cashew nut, mango, lemon and sapota may be encouraged to get back financial benefits.
9. If two or more crushers are located within 100 metres, they may be considered to have a common green belt if they are border cases. The graph prepared from NEERI Reports if furnished in Annexure – III to fix the distance and green belt for any number of crushers in a cluster, limited to a maximum of 50 (Ex. For 5 crushers in a cluster, total area 100 m, green belt 20 m).
10. Ornamental trees like Asoka along the roads on both sides leading to crushing area should be encouraged to improve the aesthetics of the working environment.
11. As an occupational safety, all the workers should be provided with nose masks.

6.9 SUPREME COURT DIRECTION FOR AQUACULTURE

Restriction on Aquaculture Farms by Aquaculture Authority Constituted by Government of India as per Supreme Court Direction:

(1) No shrimp culture pond can be set up in the Coastal Regulation Zone as defined in CRZ Notification, 2011 which is applicable to all seas, bays, estuaries, creek, river and back water. This direction shall not apply to traditional and improved traditional type of technologies practiced in low lying areas.

(2) Agriculture lands, salt pans, mangroves, wet lands, forest lands, land for village common purpose shall not be used / converted for construction of shrimp culture ponds.

(3) No aquaculture pond shall be constructed/set up within 1000 metres of Pulicat lake.

(4) Farm outside the CRZ notification are not affected by the Supreme Court order.

Guidelines for ETPs (As per the decision taken by Aquaculture Authority)

Farms upto 5 Hectares	No ETP required
Between 5 – 10 Hectares	Waste Stabilization Pond (WSP) (10% area to be earmarked for WSP)
Between 10 - 40 Hectares	Environmental Monitoring and Management Plan
Above 40 hectares	Environment Impact Assessment.

Fresh water Aquaculture is not covered by Aquaculture Authority

(1) Hatcheries fall within the purview of permitted activity under CRZ Notification, 1991. Hence no approval is required from the Aquaculture Authority.

(2) Improved technology to be adopted as per the prescribed norms with regard to productivity level. (1000 to 1500 Kg/Hectare/crop) and the stocking density (4 to 6 Nos. / sq. m) and application of inorganic fertilizer like urea, phosphate etc.

CHAPTER 7

MISCELLANEOUS

7.1 ENVIRONMENTAL TRAINING INSTITUTE

Environmental Training Institute (ETI) is an organizational wing of TNPCB, which was established in 1994 with Danish assistance. It is functioning in the 3rd floor of its corporate office of TNPCB. The main objective of the Training institute is to impart training to staff of the Pollution Control Board, Industrial representatives, Executives of Municipalities and Corporations, Line agencies and non-governmental organizations on the following aspects.

(i) Improve awareness at all levels.

(ii) Introduce the holistic approach to environment & sustainable development

(iii) Introduce the basic theories, concepts and methodologies of integrated environmental planning and management aiming a sustainable development

(iv) Promote public awareness and motivation to preserve and protect the environment through NGOs.

(v) Create Cross - media awareness in industry, urban sector and the public on Environmental Hazards and adverse impact on quality of life.

(vi) Pollution Control at source by cleaner technology and improved processes of materials and products. This includes conservation of non-renewable resources, resource recovery, refuse recycling and disposal of minimum waste to the environment.

(vii) Improve environment management capacity in the sector of industry and urban development.

(viii) Develop the ability among professionals to communicate effectively.

7.2 LIBRARY

The TNPCB Library was established in November 1989. At present library has a collection of above 11,092 Books and Reports. The collection comprises of documents to the field of Environmental Protection, Air Pollution, Vehicular Pollution, Water Pollution, Noise Pollution, Wastewater Treatment, Municipal Waste Management, Hazardous Waste Management, Biomedical Waste, Environmental Engineering, Industrial pollution, Chemical Technology, Disasters, Soil, Energy, Pesticides, Biotechnology, Environmental Health, Environmental Economics, Environmental Chemistry, Environmental Impact Assessment, Environmental Education, Sustainable Development, Women and Environment, Environmental Law, Forestry. Library subscribes for 76 Journals 9 Newspapers, 16 Magazines. Besides this Annual Reports, Newsletters, Bulletins and Reports are received from different Institutions (Indian & foreign). Back volumes of the journals are bound and kept for reference in the Periodical Section.

Membership Fee: For Students: Monthly Rs.30/-, Annual Rs.75/- For others: - Annual Fee Rs.100/-

7.3 CARE AIR CENTRE

TNPCB has established the Care Air Centre (Centre for Assessing Real Time Air Quality Information Reports) in June 2010 in the Head Office. In this centre, the stack emission level from the industries and ambient air quality levels are recorded continuously on real time basis. All instances of exceedance of norms will trigger off an alarm in the system, and immediate SMS, and Email alerts will sent to unit concerned.

The parameters monitored

Source Emission	PM, SO_2, NOx, CO, CO_2, THC, VOC, NH_3, HF, Cl_2, HCl, Mercapton, VCM, Fluorine, Flow, Temp
Ambient parameters	PM10, $PM_{2.5}$,SO_2, NO, NO_2,NOx,CO, C_6H_6, Fluorine, Cl_2, HCl, VOC, NH_3, CH_4,HCNM,HCT, VCM,O_3,RH,Temp.,Wind Speed, Wind Direction
Effluent parameters	pH ,TDS, Flow, Temperature.

7.4 SCHEDULE OF SAMPLING AND ANALYSIS CHARGES FOR ENVIRONMENTAL SAMPLES IN TNPCB LABORATORIES (Source: TNPCB BP Ms No.6 Dated 31.3.2009)

A. Sampling Charges

I Sampling charges for Ambient Air/ Fugitive emission samples

Sl. No.	Type of Sampling	Charges in Rupees.
1.	**Air Monitoring**	
	a) a) Sampling (upto each 8 hours) for suspended particulate matter and gaseous pollutants.	2000
	b) Sampling (24 hours) for suspended particulate matter and gaseous pollutants.	6000
	C) c) Sampling of Volatile Organic Compounds (VOCs)/ Benzene Toluene Xylene (BTX)	2000
	d) Sampling of Polycyclic Aromatic Hydrocarbon (PAHs)	2500

Note:

i. Sample analysis charges of respective parameters are separate as per list.

ii. All facilities required for Ambient Air Quality survey/ Stack Monitoring have to be provided by the industry.

II Source Emission Monitoring/ sampling charges

Sl. No.	Type of Sampling	Charges in Rupees.
1	Sampling / measurement of velocity, flow rate, temperature and molecular weight of Flue Gas (each specific location/ each sample in duplicate for the mentioned parameter)	5500
2	Sampling of SO_2/ NO_2	2000
3	Sampling of PAHs	3000
4	Sampling of VOCs/BTX	3500

Note:

i. Sample analysis charges of respective parameters are separates as per list.

III Noise Monitoring

Sl.No.	Type of Sampling	Charges in Rupees.
1.	First Monitoring	4000
2	Each Subsequent Monitoring within same premises	2000
3.	For 08 hours Continuous Monitoring	10000

Note:

*- First monitoring up to five measurement points (as per TNPCB B.P.Ms. No.44 Dt. 08/09/2001)

**- Additional each measurement points (as per TNPCB B.P.Ms.No.44 dt. 08/09/2001)

IV Sampling charges for Water & Waste water samples

Sl. No.	Type of Sampling	Charges in Rupees.
1	**GRAB SAMPLING**	
	1) Grab sampling/ sample/place	550
	2) For every additional Grab sampling/same point	250`
2	**COMPOSITE SAMPLING**	
	1). (a) Composite sampling /source/ place upto 8hours	1000
	(b) Composite sampling /source/ place upto 16hours	2000
	(c) Composite sampling /source/ place upto 24hours	3000
	2). (a) For every additional composite sampling/same place but different source upto 8 hours.	550
	(b) For every additional composite sampling/same place but different source upto 16 hours	1100
	(c) For every additional composite sampling/same	1650

	place but different source upto 24 hours	
3	Flow rate measurement/ Source	
	a) Once	400
	b) Every additional	150

Note:
(i) Sample analysis charges of respective parameters are separate as per list.

V Sampling charges for soil samples

Sl. No.	Type of Sampling	Charges in Rupees.
1	Grab sampling/sample place	600
2	1. For additional Grab sampling /same place	300

Note:
(i) Sample analysis charges of respective parameters will be extra as per list.

VI Hazardous Waste Sample collection charges at the premises of Industry/Import site/ Disposal site

Sl. No.	Type of Sampling	Charges in Rupees.
1	Integrated sample collection charges	1000

Note:
(i) Sample analysis charges of respective parameters are separate as per list.

(B) Analysis Charges

(1) Analysis charges of Ambient Air/ Fugitive Emission Samples.

Sl. No.	Parameters	Charges in Rupees
1	Ammonia	600
2	Analysis using dragger (per tube)	400
3	Carbon Monoxide	600
4	Chlorine	600
5	Fluoride (gaseous)	600
6	Fluoride (Particulate)	600
7	Hydrogen chloride	600
8	Hydrogen sulphide	600
9	Lead & other metals (per metal)	As mentioned in respective group at clauses 5.0
10	Polycyclic Aromatic Hydrocarbon (PAHs)	As mentioned in respective group at clauses 5.0
11	Suspended Particulate Matter (SPM)	600
12	Particulate Matter ($PM_{2.5}$)	1000
13	Respirable suspended Particulate Matter(PM_{10})	600
14	Sulphur dioxide	600

15	NO_2/ NO_x	600
16	Benzene Toluene Xylene(BTX)	1000
17	Ozone	1000
18	Volatile Organics carbon	2000
19	Elemental Analysis on air filter paper using EDXRF. Aluminum, Antimony, Arsenic, Barium, Bromine, Cadmium, Calcium, Cesium, Chlorine, Chromium, Cobalt, Copper, Gallium, Germanium, Gold, Iodine, Iron, Lanthanum, Lead, Magnesium, Manganese, Molybdenum, Nickel, Palladium, Phosphorous, Potassium, Rubidium, Rutherfordium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur, Tellurium, Tin, Titanium, Tungsten, Vanadium, Ytterbium and Zinc	3000 Per filter papers
20	Water Extractable ions in air particulate matter using Ion Chromatograph (IC)	
	i. (i) Processing/ Pretreatment charge per Sample (Filter Paper)	300
	ii. (ii) Cations (Na^+, K^+, Ca^{++} & Mg^{++}) and Anions (F^-, Br^-,Cl^-,NO_3^-,NO_2^-,SO_4^- & PO_4^-)	1200 for 12 ions
21	Organic and Elemental Carbon (OC/EC) on quartz filter paper	2000

(2) Analysis charges for Source Emission Parameters

Sl. No	Parameters	Charges in Rupees.
1	Acid Mist	600
2	Ammonia	600
3	Benzene Toluene Xylene (BTX)	1500
4	Carbon Monoxide	600
5	Chlorine	600
6	Fluoride (gaseous)	600
7	Fluoride (Particulate)	600
8	Hydrogen Chloride	600
9	Hydrogen Sulphide	600
10	Lead & other metals (per metal)	As mentioned in respective group at clause 5.0
11	Oxides of Nitrogen (NO_x)	600
12	Oxygen	500
13	Polycyclic Aromatic Hydrocarbon (PAHs) (Particulate)	As mentioned in respective group at clause 5.0
14	Sulphur Dioxide (SO_2)	600
15	Suspended Particulate Matter (SPM)	600
16	Volatile Organic compounds	3000

(3) Ambient Air Quality Monitoring using on-line monitoring instruments by Mobile Van.

Sl. No	Parameters	Charges in Rupees.
1	PM_{10}, $PM_{2.5}$, SO_2, NO_x, SPM, CO, along with Meteorological data. viz Wind speed, Temperature, Humidity, Wind direction	Rs. 3500/hour (minimum charges Rs. 15000/-) + Rs. 50/Km run of the van for 24 hours monitoring.

(4) Auto Exhaust Monitoring – One time checking of vehicular exhaust.

Sl. No	Parameters	Charges in Rupees.
1	**Standard of Smoke or the levels of other pollutants or both**	
	a) Motor cycle or Light Motor Vehicle (Three Wheelers)	30
	b) For Light Motor Vehicle (Four Wheelers)	50
	c) Medium & Heavy vehicle (Both Passenger and Goods vehicle)	100

Note: The existing charges as per G.O. M.S. No. 674 Home (Transport V) Dept. Dated: 3.6.1998. The Revision of rates shall be applicable as and when amended by the Government of Tamil Nadu.

(5) Analysis charges of Water and Waste Water Samples

Sl. No	Parameters	Charges in Rupees.
i)	**Physical Parameters**	
1	Conductivity	60
2	Colour	100
3	Odour	60
4	Sludge Volume Index (SVI)	200
5	Solids (Dissolved)	100
6	Solids (Fixed)	150
7	Solids (Volatile)	150
8	Suspended Solids	100
9	Temperature	60
10	Total Solids	100
11	Turbidity	60
12	Velocity of flow (Current meter)	200
13	Velocity of flow (Others)	550
ii)	**Chemical Parameters**	
1	Acidity	100
2	Alkalinity	100
3	Ammoniacal Nitrogen	200
4	Bi Carbonates	100
5	Bio-Chemical Oxygen Demand (BOD)	600
6	Bromide	100
7	Calcium (Titrimetric)	100

8	Carbon di oxide	100
9	Carbonates	100
10	Chloride	100
11	Chlorine Demand	200
12	Chlorine Residual	100
13	Chemical Oxygen Demand (COD)	350
14	Cyanide	350
15	Detergents	200
16	Dissolved Oxygen	100
17	Fluoride	200
18	H-acid	350
19	Hardness (Calcium)	100
20	Hardness (Total)	100
21	Iodide	100
22	Nitrate Nitrogen	200
23	Nitrite Nitrogen	200
24	Percent Sodium	600
25	Permanganate value	200
26	pH	60
27	Phosphate (Ortho)	200
28	Phosphate (Total)	350
29	Salinity	100
30	Sodium absorption ratio (SAR)	600
31	Settleable solids	100
32	Silica	200
33	Sulphate	150
34	Sulphide	200
35	Total Kjeldahl Nitrogen	350
36	Urea Nitrogen	350
37	Cations (Na^+,$NH4^+$,K^+,Ca^{++} & Mg^{++}) and Anions (F^-, Br^-,Cl^-,NO_3^-,NO_2^-,SO_4^{--} & PO_4^{---}) in surface & ground water samples using Ion Chromatograph	1200 (for 12 ions)
iii)	**Metal Analysis**	
a)	Processing and pre treatment charges per samples	500
b)	Analysis Charges:	
1	Aluminium	300
2	Antimony	300
3	Arsenic	300
4	Barium	300
5	Beryllium	300
6	Boron	300
7	Cadmium	300
8	Chromium Hexavalent	200
9	Chromium Total	300
10	Cobalt	300

11	Copper	300
12	Iron (Total)	300
13	Lead	300
14	Magnesium	200
15	Manganese	300
16	Mercury (processing and Analysis)	800
17	Molybdenum	300
18	Nickel	300
19	Potassium	200
20	Selenium	300
21	Silver	300
22	Sodium	200
23	Strontium	300
24	Tin	300
25	Vanadium	300
26	Zinc	300
iv)	**Organo Chlorine Pesticides (OCPs)**	
a)	Processing/Pretreatment Charge per Sample	1000
b)	Analysis charges:	
1	Aldrin	400
2	Dicofol	400
3	Dieldrin	400
4	Endosulfan-I	400
5	Endosulfan-II	400
6	Endosulfan sulfate	400
7	Heptachlor	400
8	Hexachlorobenzene (HCB)	400
9	Methoxy chlor	400
10	o,p-DDT	400
11	p,p'-DDD	400
12	p,p'-DDE	400
13	p,p'-DDT	400
14	Alpha-HCH	400
15	Beta-HCH	400
16	Gamma-HCH	400
17	Delta-HCH	400
v)	**Organo Phosphorous Pesticides (OPPs)**	
a)	Processing/Pretreatment Charge per sample	1000
b)	Analysis Charges:	
1	Chlorpyriphos	400
2	Dimethoate	400
3	Ethion	400
4	Malathion	400
5	Monocrotophos	400

6	Parathion-methyl	400
7	Phorate	400
8	Phosphamidon	400
9	Profenophos	400
10	Quinalphos	400
vi)	**Synthetic Pyrethroids (SPs)**	
a)	Processing/Pretreatment charge per samples	1000
b)	Analysis charges:	
1	Deltamethrin	400
2	Fenpropethrin	400
3	Fenvalerate	400
4	Alpha-cypermethrin	400
5	Bet-cyflutrin	400
6	Gamma-cyhalothrin	400
Vii)	**Herbicides**	
a)	Processing/Pretreatment charge per samples	1000
b)	Analysis charges:	
1	Alachlor	400
2	Butachlor	400
3	Fluchloralin	400
4	Pendimethalin	400
viii)	**Polycyclic Aromatic Hydro carbon (PAH)**	
a)	Processing/Pretreatment charge per samples	1000
b)	Analysis charges:	
1	Acenaphthene	400
2	Acenaphthylene	400
3	Anthracene	400
4	Benz(a)anthracene	400
5	Benzo(a)pyrene	400
6	Benzo(b)fluroanthene	400
7	Benzo(e)pyrene	400
8	Benzo(g,h,i)perylene	400
9	Benzo(k)fluoranthene	400
10	Chrysene	400
11	Dibenzo(a,h)anthracene	400
12	Fluoranthene	400
13	Fluorene	400
14	Indeno (1,2,3-cd)pyrene	400
15	Naphthalene	400
16	Perylene	400
17	Phenanthrene	400
18	Pyrene	400
ix)	**Polychlorinated Biphenyls (PCBs)**	
a)	Processing/Pretreatment charge per samples	1000

b)	Analysis charges:	
1	Aroclor 1232	400
2	Aroclor 1242	400
3	Aroclor 1248	400
4	Aroclor 1254	400
5	Aroclor 1260	400
6	Aroclor 1262	400
x)	**Tri Halo Methane (THM)**	
a)	Processing/Pretreatment charge per samples	800
b)	Analysis charges:	
1	Bromo dichloromethane	400
2	Bromoform	400
3	Choloroform	400
4	Dibromo chloromethane	400
xi)	**Other Organic Parameters**	
1	Adsorbable Organic Halides (AOX)	2000
2	Oil and Grease	200
3	Phenol	200
4	Tannin/Lignin	350
5	Total Organic Carbon (TOC)	500
6	Volatile Organic acids	350
xii)	**Biological Test**	
a)	Bacteriological Samples collection	200
b)	Analysis charges:	
1	Benthos organism identification & count (each sample)	600
2	Benthos organism sample collection	1000
3	Chlorophyll estimation	600
4	E-Coliform (MFT Technique)	400
5	E-Coliform (MPN Technique)	350
6	Faecal Coliform (MFT Technique)	400
7	Faecal Coliform (MPN Technique)	350
8	Faecal Steptococci (MFT Technique)	450
9	Faecal Steptococci (MPN Technique)	400
10	Plankton Sample collection	250
11	Plankton (Phyto plankton count)	600
12	Plankton zoo plankton count	600
13	Standard Plate count	200
14	Total Coliform MFT Technique	400
15	Total Coliform MPN Technique	350
16	Total Plate count	350
17	Toxicological Bio assay (LC 50)	2800
18	Toxicological Dimension less toxicity test	1600

(6) Analysis charges of Soil samples/Sludge/Sediments/Solid Waste Samples

Sl. No	Soil Parameters	Charges in Rupees
1	Ammonia	300
2	Bicarbonate	200
3	Boron	400
4	Calcium	150
5	Calcium Carbonate	350
6	Cation Exchange Capacity (CEC)	400
7	Chloride	150
8	Colour	100
9	Electrical Conductivity (EC)	100
10	Exchangeable sodium Percentage (ESP)	550
11	Gypsum requirement	350
12	H-Acid	400
13	Heavy Metal	As mentioned in respective group at clause 5.0
	Elemental Analysis using ED-XRF: Aluminium, Antimony, Arsenic, Barium, Bromine, Cadmium, Calcium, Cesium, Chlorine, Chromium, Cobalt, Copper, Gallium, Germanium, Gold, Iodine, Iron, Lanthanum, Lead, Magnesium, Manganese, Molybdenum, Nickel, Palldium, Phoshorous, Potassium, Rubidium, Rutherfordium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur, Tellurium, Tin, Titanium, Tungsten, Vanadium, Ytterbium and Zinc per sample	4000
14	Magnesium	300
15	Mechanical soil analysis (Soil texture)	150
16	Nitrate	300
17	Nitrite	300
18	Nitrogen available	350
19	Organic carbon/Matter (chemical method)	350
20	Polycyclic Aromatic Hydrocarbon (PAHs)	As mentioned in respective group at clause 5.0
21	Polychlorinated Biphenyls (PCBs)	As mentioned in respective group at clause 5.0
22	Pesticides	As mentioned in respective group at clause 5.0
23	pH	100
24	Phosphorous (available)	400
25	Phosphate (Ortho)	300
26	Phosphate(Total)	400
27	Potash available	200
28	Potassium	300

29	Sodium Absorption Ratio (SAR) in soil extract	650
30	Sodium	300
31	Soil Moisture	100
32	Sulphate	200
33	Sulphur	350
34	Total Kjeldahi Nitrogen	400
35	Total Organic Carbon (TOC)	550
36	Total water soluble salts	200
37	Water holding capacity	100

Note: The sampling charges for soil samples as specified in clause A (V)

(7) Analysis charges for Hazardous waste Samples

Sl.No	Parameters	Charges in Rupees
1.	Preparation of Leachate (TCLP Extract/Water Extract)	1000
2.	Determination of various parameters in leachate	As mentioned in respective group at clause 5.0
3.	Flash point/Ignitibility	550
4.	Reactivity	550
5.	Corrosivity	550
6.	Measurement of Toxicity LC_{50}	2800
7.	Measurement of Dimension less toxicity	1600
8.	Total Organic Carbon (TOC)	500
9.	Absorbable Organic Halides (AOX)	2000

7.5 SEIAA ENVIRONMENTAL CLEARANCE PROCESSING FEE

ABSTRACT

Environment – Project proposals requesting Environmental Clearance – Processing Fees collected by the state Level Environment impact Assessment Authority and State Level Expert Appraisal Committee – Revision of Processing Fee – Orders – Issued

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ENVIRONMENT AND FORESTS (EC.3) DEPARTMENT

G.S. (Ms) No. 281 Dated: 31.12.2012

Read:

1. G.O. (Ms) No. 110, Environment and Forests (EC.3) Department, Dated: 03.09.2009.
2. From the Chairman, State Level Environment Impact Assessment Authority D.O. Letter No. SEIAA/TN/F. General/Processing Fee/2012, Dated: 25.09.2012
3. G.O. (Ms) No. 260 E&F(EC.3) Department dated 15.11.2012.

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ORDER

1. In the Government Order first read above orders were issued authorizing the State Level Environment Impact Assessment Authority to levy one time processing charge of Rs.1 Lakh (Rupees one lakh only) only for each environment clearance proposal and to the applicant industries should remit the amount by Demand Draft to the Tamil Nadu Pollution Control Board's account.

2. In the Government order third read above orders were issued among other things nominating the Directorate of Environment to function as the Secretariat for the State Level Environment Impact Assessment Authority and State Level Expert Appraisal Committee from the date of the order instead of Tamil Nadu Pollution Control Board. The Director of Environment was also permitted to collect the processing fees ordered in G.O. (Ms)No.110, Environment and Forest (EC.3) Department, Dated 03.09.2009 instead of Tamil Nadu Pollution Control Board.

3. The Chairman, State Level Environment Impact Assessment Authority in his D.O. letter second read above has informed that the proposal for revision of processing fee was placed before the State Level Environment Impact Assessment Authority in its 53rd Meeting held on 4.09.2012 and it is proposed to revise the processing fee as detailed below:-

Sl. No	Total Project Cost (Rs.) (Other than minor mineral) Excepting Granite	One time processing fee
1	Up to Rs. 5 crores	Rs. 1 lakh
2	More than Rs. 5 crores and upto Rs. 25 crores	Rs. 2 lakhs
3	More than Rs. 25 crores and upto Rs. 100 crores	Rs. 3 lakhs
4	More than Rs. 100 crores	Rs. 5 lakhs

For minor minerals (Excepting granites)

Sl. No	Total area of mining	One time processing fee
1	For area less than 2 hectares	Rs. 10,000/-
2	For area more than 2 hectares but less than 5 hectares	Rs. 20,000/-
3	For area more than 5 hectares but less than 25 hectares	Rs. 1,00,000/-
4	For area more than 25 hectares but less than 50 hectares	Rs.2,00,000/-

4. The Government after careful consideration accepts the proposal of the Chairman, State Level Environment Impact Assessment Authority and order that the processing fee to be collected for processing the proposals from project proponents for Environmental Clearance by the State Level Expert Appraisal Committee and State Level Environment Impact Assessment Authority is revised as detailed below:-

Sl. No	Total Project Cost (Rs.) (Other than minor mineral) Excepting Granite	Scrutiny fee
1	Up to Rs. 5 crores	Rs. 1 lakh
2	More than Rs. 5 crores and upto Rs. 25 crores	Rs. 2 lakhs
3	More than Rs. 25 crores and upto Rs. 100 crores	Rs. 3 lakhs
4	More than Rs. 100 crores	Rs. 5 lakhs

For minor minerals (Excepting granites)

Sl. No	Total area of mining	One time processing fee
1	For area less than 2 hectares	Rs. 10,000/-
2	For area more than 2 hectares but less than 5 hectares	Rs. 20,000/-
3	For area more than 5 hectares but less than 25 hectares	Rs. 1,00,000/-
4	For area more than 25 hectares but less than 50 hectares	Rs.2,00,000/-

5. This order issues with the concurrence of the Finance Department vide its U.O. No. 60209/BPE/2012, Dated: 07.11.2012.

(BY ORDER OF THE GOVERNOR)

MOHAN VERGHESE CHUNKATH
ADDITIONAL CHIEF SECRETARY TO GOVERNMENT

7.6 ENVIRONMENT RELATED ORGANISATIONS

Sl.No.	Name and Address of the Organization
1	Ministry of Environment and Forests, Government of India, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi – 110 003. web site: www.moef.nic.in
2	Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 110 032. Tel: 011-22307233, Fax: 011-22304948 E-mail: ccb.cpcb@nic.in Web site : www.cpcb.nic.in
3	National Green Tribunal Principal Bench Van Vigyan Bhavan, Sector V, R K Puram, New Delhi – 110 022. Tel: 011-26175950, Fax: 011-26170502 Web site: www.greentribunal.in
4	Environment and Forests Department Government of Tamil Nadu 7th Floor, Namakkal Kavignar Maligai, Secretariat, Fort St George, Chennai- 600 009. Tel: 044-25671511, Fax: 044-25670560 E.Mail: forsec@tn.gov.in web site: www.tn.gov.in
5	National Green Tribunal Southern Zone TNPCB Building 950/1 Poonamallee High Road, Arumbakkam, Chennai – 600 106.
6	Directorate of Environment Ground Floor, Panagal Building, No.1, Jeenis Road, Saidapet, Chennai – 600 015. Tel: 044-2433 6421, 2433 6928 Fax: 044-24336594 E Mail: tndoe@tn.nic.in

7	State Environmental Impact Assessment Authority, Tamil Nadu Third Floor, Panagal Building, No.1, Jeenis Road, Saidapet, Chennai – 600 015. Tel: 044-2435 9971 Email: msecytnseiaa@yahoo.com Web site: www.seiaa.tn.gov.in
8	Loss of Ecology (Prevention and Payment of Compensation) Authority, New No. 298, Old No. 148, Peters Road, Chennai – 600 086. Tel: 044 – 2858 8270 Fax: 044 - 2858 8237
9	The Appellate Authority Tamil Nadu Pollution Control No. 51, Gangadeeswarar Koil Street Purasawalkam, Chennai – 600 084. Tel: 044-26610119
10	State Groundwater and Surface Water Resources Data Centre, Water Resources Organisation, Public Works Department, Tharamani, Chennai – 600 113. Tel: 044-22541368
11	Central Ground Water Board, E-Wing, G-Block, Rajaji Bhavan, CGO Complex, Besant Nagar, Chennai – 600 090. Tel: 044-24914334, 24912941. Fax: 044-24914334. E.mail: rdsecr-cgwb@nic.in Web site: www.cgwb.gov.in
12	Chennai Metropolitan Development Authority, Thalamuthu Natarajan Building, 1, Gandhi Irwin Road, Egmore, Chennai- 600 008. Tel: 044-28414855. Fax: 044-28548416
13	Directorate of Town and Country Planning, 807, Anna Salai, Chennai- 600 002. Tel: 044-28521115, 28521116. Fax: 044-28529582
14	Industrial Guidance and Export Promotion Bureau, 19 A, Rukmani Lakshmipathy Salai, Egmore, Chennai – 600 008. Tel: 044-28553856, Fax: 044-28588364.

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