TNPCB & YOU

(A Ready Reckoner for Entrepreneurs)

Tamilnadu Pollution Control Board

January 2017

TNPCB & YOU

A READY RECKONER FOR ENTREPRENEURS

POLLUTION PREVENTION PAYS

Index

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 five zonal offices headed by Joint Chief

Environmental Engineers (JCEE) and 36 district offices headed by District Environmental Engineers (DEE). 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 and other Wastes (Management and Transboundary Movement) Rules, 2016.
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, 2011.
15. The Environment Impact Assessment Notification, 2006 as amended in 2009,
16. The National Green Tribunal Act, 2010.
17. The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996
18. The Bio-Medical Waste Management Rules, 2016.
19. Utilization of Fly Ash from Coal or Lignite based Thermal Power Plants Notification, 1999 as amended in 2003.
20. The Solid Wastes Management Rules, 2016.
21. Noise Pollution (Regulation and Control) Rules, 2000.
22. Ozone Depleting Substances (Regulation and Control) Rules, 2000.
23. The Batteries (Management and Handling) Rules, 2001 as amended.
24. The Plastics Waste Management Rules, 2016.
25. The E-Waste (Management) Rules, 2016.
26. Construction and Demolition Waste Management Rules, 2016.

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 **Red, Orange, Green and White** according to their pollution potential. Also the industries have been classified as **Large, Medium and Small** scale based on the gross 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 (entire State of 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-chn@gov.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: 044-26880219 E.mail: jceechennai@gmail.com	Chennai, Ambattur Maraimalai Nagar, Sriperumbudur, Tiruvallur
2	Coimbatore	Tamil Nadu Pollution Control Board, No. 216, Thadagam Road, GCT College Opp. Coimbatore - 641 013. Tel: 0422-2445007 E.mail: jceecbe@gmail.com	Coimbatore (North), Coimbatore (South), Erode, Namakkal, Perundurai, Salem, Tiruppur (North), Tiruppur (South) & Nilgiris
3	Madurai	Tamil Nadu Pollution Control Board, SIDCO Industrial Estate, Kappalur, Thirumangalam Taluk, Madurai - 625 008. Tel: 0452-2489740 E.mail: tnpcbjceemdu@gmail.com	Madurai, Sivagangai, Ramanathapuram, Theni
4	Tirunelveli		Tirunelveli, Thoothukudi, Virudhunagar, Nagercoil
5	Trichy	Tamil Nadu Pollution Control Board, No.25, Developed Plots, Thuvakudy, Trichy - 620 015 Tel: 0431-2502020 E.mail: jceetry@gmail.com	Trichy, Pudukottai, Thanjavur, Nagapattinam, Cuddalore, Karur, Dindigul, Ariyalur
6	Vellore	Tamil Nadu Pollution Control Board Auxilium College Road , (Opposite to Auxilium College) Gandhi Nagar, Vellore -632 006 Tel: 0416-2244118 E.mail: tnpcbjceevlr@gmail.com	Vellore, Villupuram, Hosur, Tiruvannamalai, Vaniyambadi Dharmapuri

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 26880522 E.mail: deeambattur@gmail.com	Ambattur Taluk Ponneri Taluk Madavaram Taluk Maduravoil Taluk Thiruvotriyur Taluk
2	Ariyalur	District Environmental Engineer Tamil Nadu Pollution Control Board 99-A, Ethiraj Nagar, Railway Station Road, Rajaji Nagar (PO), Ariyalur – 621 713. Phone: 04329-221555 E.mail: deetnpcbariyalur@gmail.com	Ariyalur District Perambalur District
3	Chennai	District Environmental Engineer, Tamil Nadu Pollution Control Board 6/1, Murugesan Street, Sri Jothi Complex, Opp. Hotel Vijay Park, Near MMDA Bus Stop, Arumbakkam, Chennai - 600 106. Phone 044-23632603 Email: 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 : 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: tnpcbcbs@gmail.com	Coimbatore South Taluk Sulur Taluk Pollachi Taluk Valparai Taluk Kinathukadavu Taluk Madukkarai Taluk
6	Cuddalore	District Environmental Engineer, Tamil Nadu Pollution Control Board Plot No. A3, SIPCOT Industrial Complex, Kudikadu, Cuddalore - 607 005. Phone : 04142 - 239867 Email: deetnpcbcud@gmail.com	Cuddalore District
7	Dindigul	District Environmental Engineer, Tamil Nadu Pollution Control Board, Plot No:44, Jayaraj Bhavan 9th Cross Street, Thiruvallur Salai Dindigul District -624 003	Dindigul District

		Phone : 0451-2423161 Email: pcbdgl@gmail.com	
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: deetnpcberd@gmail.com	Erode Taluk Kodumudi Taluk Modakkuruchi 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: deehosur@gmail.com	Krishnagiri 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: tnpcbmmnagar&gmail.com	Tambaram Taluk Alandur Taluk Sholinganallur Taluk Chengalpattu Taluk Cheyyur Taluk Thirukalukundram Taluk Pallavaram Taluk Thiruporur Taluk
11	Karur	District Environmental Engineer Tamil Nadu Pollution Control Board No 26, Ramakrishnapuram West, Karur - 639 001. Phone : 04324 - 230522 Email: tnpcbkarur@gmail.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: tnpcbmdu@gmail.com	Madurai District
13	Nagapattinam	District Environmental Engineer, Tamil Nadu Pollution Control Board, No.14, Perumal sannathi street Nagapattinam – 611001. Phone : 04365 - 221832 Email: aeetnpcbnagai@yahoo.co.in	Nagapattinum District Thiruvarur District
14	Nagercoil	District Environmental Engineer, Tamil Nadu Pollution Control Board, No. 30, Kesari Street, Mathias Nagar, Nagercoil - 629 001. Phone : 04652-229442 Email: 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.	Namakkal District

		Phone : 04286 - 276725 Email: tnpcbnamakkal@gmail.com	
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: deetnpcbpnd@gmail.com	Perundurai Taluk Gobichettipalayam Taluk Bhavani Taluk Sathyamangalam Taluk Anthiyur Taluk Thalavadi Taluk
17	Pudukkottai	District Environmental Engineer, Tamil Nadu Pollution Control Board, T.S.No.6107/1 Kalyanaramapuram First Floor, Thirukokarnam, Pudukkotai – 622 002. Phone : 04322 – 220888 Email: 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: deetnpcbslm@gmail.com	Salem District
19	Sivagangai	District Environmental Engineer, Tamil Nadu Pollution Control Board, No.5, Perumal Koil Street, Geetha Mahal, First Floor, Sivagangai - 630561. Email: tnpcbsvg@gmail.com	Sivagangai 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: tnpcb_deespr@yahoo.in	Sriperumbudur Taluk Kancheepuram Taluk Maduranthagam Taluk Utthiramerur Taluk Walajabad Taluk
21	Thanjavur	District Environmental Engineer, Tamil Nadu Pollution Control Board, Plot No.23, TS No. 3303/1, SIDCO Industrial Estate, Nanchikottai Salai, Opp.to Ulavar Santhai Thanjavur - 613 006. Phone : 04362 -240558 Email:deetnpcbtanjore@gmail.com	Thanjavur District
22	Thiruchirapalli	District Environmental Engineer Tamil Nadu Pollution Control Board, No.25, Developed Plots, Thuvakudy, Trichy - 620 015 Phone : 0431 - 2501588 Email: deetnpcbtrichy@gmail.com	Thiruchirapalli District Permabalur District Ariyalur District

23	Thiruvallur Thiruvallur Dt	District Environmental Engineer, Tamil Nadu Pollution Control Board, Plot No. 41, 1st Street, Judges Colony, Tiruvallur 602001 Phone 044 27664425 Email: tnpcb.tlr@gmail.com	Tiruvallur Taluk Tirutthani Taluk Pallipattu Taluk Gummudipoondi Taluk Poonamalle Taluk Uthukottai Taluk
24	Thiruvannamalai	District Environmental Engineer Tamil Nadu Pollution Control Board, 541/B, Ashok Nagar, Venkikal, Tiruvannamalai- 606 604. Phone: 04175-233118	Tiruvannamalai District
25	Thoothukudi	District Environmental Engineer, Tamil Nadu Pollution Control Board, C7 & C9, SIPCOT Industrial Complex, Meelavittan, Thoothukudi – 628 008. Phone : 0461 -2341298 Email: 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: deetirunelveli@yahoo.co.in	Tirunelveli District
27	Tiruppur (North)	District Environmental Engineer, Tamil Nadu Pollution Control Board, Kumaran Complex, Kumaran Road, Tiruppur - 641 601. Phone : 0421 - 2207199 Email ID : deetnpcbtpr.n@gmail.com	Tiruppur (North) Taluk Tiruppur (South)Tk Avinasi Taluk Kangayam Taluk Uthukuli Taluk
28	Tiruppur (South)	District Environmental Engineer, Tamil Nadu Pollution Control Board, 12A, Pollachi Road, Palladam, Tiruppur District. PIN - 641 664. Phone : 04255 - 252225 Email ID : deetnpcbtpr.s@gmail.com	Palladam Taluk Udumelpet Taluk Madathukulam Tk Dharapuram Tk
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: tnpcb.vaniyambadi@gmail.com	Vaniyambadi Taluk Katpadi Part Gudiyatham Taluk Tirupattur Taluk Vellore Part Ambur Taluk Anicut Taluk Natrampalli Taluk
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: 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: 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: deetnpcbvnr@gmail.com	Virudhunagar District
33	Theni	District Environmental Engineer, Tamil Nadu Pollution Control Board, SAR Complex, Door No.15/4,12A/3, Back to National Theater, Theni - 625531. Phone: 04546-264426 Email: tnpcbtheni@gmail.com	Theni District
34	Uthagamandalam	District Environmental Engineer, Tamil Nadu Pollution Control Board, No.7A, Convent Road, St. Mary's Hill, Post Box No. 52, Uthagamandalam – 643001. Phone: 0423-2443109 Email: tnpcbooty@gmail.com	The Nilgris District
35	Dharmapuri	District Environmental Engineer, Tamilnadu Pollution Control Board, Old No.64A, New No.8, 1st floor, 5thCross, Appavu Nagar, Dharmapuri - 636 701	Dharmapuri District
36	Ramanathapuram	District Environmental Engineer, Tamilnadu Pollution Control Board, 1/880, Sait Ibrahim Nagar 1st street, Bharathi Nagar South, Ramanathapuram - 623 504	Ramanathapuram 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. Phone: 0421-2241131 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. Phone: 0424-2268266 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 Email: admmohan@yahoo.co.in	Chennai District Other important samples
2	Coimbatore	136-D, Swami Iyer New Street, Ganga Garden, Coimbatore – 641001. Phone : 0422 – 2340174 Email: deltnpcbcbe@dataone.in	Coimbatore District Nilgiri District
3	Cuddalore	Plot No. A3, SIPCOT Industrial Complex, Kudikadu, Cuddalore – 607005. Phone : 04142 233332 Email: aeltnpcbcud@gmail.com	Cuddalore District Villupuram District Nagapattinam District Tiruvarur District
4	Madurai	Survey No. 668 & 669, SIDCO Industrial Estate, Kappalur, Madurai – 625008. Phone : 0452 – 2489497 Email: aeltnpcbmadurai@yahoo.co.in	Madurai District Sivagangai District Ramanathapuram District Viruthunagar District
5	Salem	SIVA TOWER, 1/276, Meyyanur Main Road, P.B.No. 457, Salem - 636004. Phone: 0427-2448054 Email: tnpcbaelslm@dataone.in	Salem District Namakkal District Karur District

District Environmental Laboratories

S.No	District	Address	Jurisdiction
1	Ambattur Tiruvallur Dt	77-A, South Avenue Road, Ambattur Industrial Estate, Chennai – 600058. Phone : 044 – 26880560 Email: delambtnpcb@gmail.com	Tiruvallur District
2	Arumbakkam Chennai Dt	950/1, Poonamallee High Road, Arumbakkam, Chennai - 600 106. Phone 044 26268603 Email: delmanali@gmail.com	Chennai District
3	Dindigul	No. 44, Jayaraj Bhavan, 9th Cross Street, Thiruvalluvar Salai, Dindigul – 624003. Phone : 0451 2428891 Email:deldgl@yahoo.co.in	Dindigul District Theni District
4	Hosur, Krishnagiri Dt	Plot No. 149-A, 1st Floor, SIPCOT Industrial Complex, Near Dharga, Hosur – 635126. Phone : 04344 – 276109 Email: tnpcbdelhosur@gmail.com	Krishnagiri District Dharmapuri District
5	Maraimalai Nagar Kancheepuram Dt	Maraimalai Adigalar Street Next to Municipal office Maraimalai Nagar Chennai - 603209 Phone: 044-27454004 Email: delmmnagar@gmail.com	Tambaram Taluk Alandur Taluk Sholinganallur Taluk Chengalpattu Taluk Cheyyar Taluk Thirukalukundram Taluk
6	Thiruchirapalli	25, Developed Plot, Thuvakudi, Thiruchirapalli - 620015. Phone : 0431-2501457 Email: deltnpcbtry@dataone.in	Thiruchirapalli District Ariyalur District Perambalur District Thanjavur District Pudukkottai District
7	Thoothukudi	C7 & C9, SIPCOT Industrial Complex, Meelavittan, Thoothukudi – 628 003. Phone : 0461-2340810 Email: deltnpcbtut@gmail.com	Thoothukudi District
8	Tirunelveli	30/2, SIDCO Industrial Estate, Pettai, Thirunelveli – 627010. Phone : 0462 – 2342919 Email: deltnpcb@rediffmail.com	Tirunelveli District Kanyakumari District
9	Tiruppur	II nd Floor, Kumaran Commercial Complex, Kumaran Road, Thiruppur – 641601. Phone: 0421-2244876 Email: tiruppurlab@gmail.com	Tiruppur District Erode District

10	Vellore	Auxilium College Road, (Opposite to Auxilium College Road) Gandhi Nagar, Vellore - 632006. Phone : 0416 – 2247906 Email: delvlr2011@gmail.com	Vellore District Tiruvannamalai 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 coastal 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	Radioactive 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
Essential 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 $CaCO_3$), mg/L	300	600
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^{o}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 coliforms 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, Ammonical Nitrogen
7	Dairy	Core Parameters
8	Distillery	Core Parameters, Sulphide, Total Kjeldahl Nitrogen, Phosphate, Potassium, Volatile solids
9	Dye Stuff/Dye Intermediate	Core Parameters, Phenolic Compounds, Total Kjeldahl Nitrogen, Cadmium, Copper, Manganese, Lead, Nickel, Zinc, Chromium
10	Engineering with	Core Parameters, Cyanide, Hexavalent & Total

	Electroplating / Heat Treatment	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	Core Parameters, cyanide, Phenolic compounds,

	Plant	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 tonne 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 31 A	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**		**Method of Measurements**
			Industrial, Residential, Rural and Other Area	**Ecologically Sensitive Area (notified by Central Government)**	
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO_2), µg/m^3	Annual*	50	20	-Improved West and Geake - Ultraviolet fluorescence
		24 hours**	80	80	
2	Nitrogen Dioxide (NO_2), µg/m^3	Annual*	40	30	-Modified Jacob & Hochheiser (Na – Arsenic) - Chemiluminescnece
		24 hours**	80	80	
3	Particulate Matter (size less than 10 µm) or PM_{10} µg/m^3	Annual*	60	60	- Gravimetric -TOEM -Beta attenuation
		24 hours**	100	100	

4	Particulate Matter (size less than 2.5µm) or $PM_{2.5}$ µg/m^3	Annual*	40	40	- Gravimetric - TOEM - Beta attenuation
		24 hours**	60	60	
5	Ozone (O_3), µg/m^3	8 hours**	100	100	- UV photometric Chemilminescence - Chemical Method
		1 hour**	180	180	
6	Lead (Pb), µg/m^3	Annual*	0.50	0.50	- AAS/ICP method after sampling on EPM 2000 or equivalent Filter paper - ED-XRF using Teflon filter
		24 hours**	1.0	1.0	
7	Carbon Monoxide (CO), mg/m^3	8 hours**	02	02	- Non Dispersive Infra Red (NDIR) - Spectroscopy
		1 hour**	04	04	
8	Ammonia (NH_3), µg/m^3	Annual*	100	100	- Chemiluminescence - Indophenol blue method
		24 hours**	400	400	
9	Benzene (C_6H_6), µg/m^3	Annual*	05	05	- Gas chromatograph based continuous analyzer - Adsorption and Desorption followed by GC analysis
10	Benzo (a) Pyrene (BaP) – particulate phase only, ng/m^3	Annual*	01	01	- Solvent extraction followed by HPLC /OC analysis
11	Arsenic (As), ng/m^3	Annual*	06	06	- AAS/ICP method afar sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni), ng/m^3	Annual*	20	20	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

***** 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.

Note: Whenever and wherever results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation

SANT PRASA GAUTAM, CHAIRMAN

[ADVT-III/4/184/09/Exty.]

Note: The notification on National Ambient Air Quality Standers were published by the Central Pollution Control Board in the Gazette of India, Extraordinary vide notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935 (E), dated 14th October, 1998.

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 programme 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)

Parameter		Area Category	Total engine rating of the plant (includes existing as well as new generator sets)	Generator sets commissioning date		
				Before 1.7.2003	Between 1.7.2003 and 1.7.2005	On or after 1.7.2005
NO_x (as NO_2) (At 15% O_2), dry basis, in ppmv		A	Up to 75 MW	1100	970	710
		B	Up to 150 MW			
		A	More than 75 MW	1100	710	360
		B	More than 150 MW			
NMHC (as C) (at 15% O_2), mg/Nm^3		Both A and B		150	100	
PM (at 15% O_2), mg/Nm^3	Diesel Fuels- HSD & LDO	Both A and B		75	75	
	Furnace Oils- LSHS & FO	Both A and B		150	100	
CO (at 15% O_2), mg/Nm^3		Both A and B		150	150	
Sulphur content in fuel		A		< 2%		
		B		< 4%		
Fuel specification		For A only	Up to 5 MW	Only Diesel Fuels (HSD, LDO) shall be used		
Stack height (for generator sets commissioned after 1.7.2003)		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.				

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/NM3)
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/Nm3 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/Nm3
(b) Horse shoe/pulsating grate – Particulate Matter	500 mg/Nm3 (12% CO_2)
(c) Spreader Stroker – Particulate Matter	800 mg/Nm3(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^{o}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^{o}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 Lead	 50 mg/Nm^3 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 Transboundary 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

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5.6 THE BIO-MEDICAL WASTE MANAGEMENT RULES, 2016

(MoEF Notification **G.S.R. 343(E).-** Dated 28.3.2016.)

Salient Features

Rule 2	**Application :-** These rules shall apply to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form including hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathological laboratories, blood banks, ayush hospitals, clinical establishments, research or educational institutions, health camps, medical or surgical camps, vaccination camps, blood donation camps, first aid rooms of schools, forensic laboratories and research labs.
Rule 3	**Definitions :-**
	"**bio-medical waste**" means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps, including the categories mentioned in Schedule I appended to these rules;
	"**health care facility**" means a place where diagnosis, treatment or immunisation of human beings or animals is provided irrespective of type and size of health treatment system, and research activity pertaining thereto;
	"**occupier**" means a person having administrative control over the institution and the premises generating bio-medical waste, which includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood bank, health care facility and clinical establishment, irrespective of their system of medicine and by whatever name they are called;
	"**bio-medical waste treatment and disposal facility**" means any facility wherein treatment, disposal of bio-medical waste or processes incidental to such treatment and disposal is carried out, and includes common bio-medical waste treatment facilities;
	"**authorisation**" means permission granted by the prescribed authority for the generation, collection, reception, storage, transportation, treatment, processing, disposal or any other form of handling of bio-medical waste in accordance with these rules and guidelines issued by the Central Government or Central Pollution Control Board as the case may be;
Rule 4	**Duties of the Occupier:-** (1) The occupier shall take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health and the environment and in accordance with these rules; (2) The occupier shall make a provision within the premises for a safe, ventilated and secured location for storage of segregated biomedical

	waste in colored bags or containers in the manner as specified in Schedule I, to ensure that there shall be no secondary handling, pilferage of recyclables or inadvertent scattering or spillage by animals and the bio-medical waste from such place or premises shall be directly transported in the manner as prescribed in these rules to the common bio-medical waste treatment facility or for the appropriate treatment and disposal, as the case may be, in the manner as prescribed in Schedule I (3) The occupier shall pre-treat the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner as prescribed by the World Health Organisation (WHO) or National AIDs Control Organisation (NACO) guidelines and then sent to the common bio-medical waste treatment facility for final disposal; (4) The occupier shall phase out use of chlorinated plastic bags, gloves and blood bags within two years from the date of notification of these rules; (5) The occupier shall not give treated bio-medical waste with municipal solid waste; (6) The occupier shall ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluent generated from health care facilities; (7) The occupier shall maintain and update on day to day basis the bio-medical waste management register and display the monthly record on its website according to the bio-medical waste generated in terms of category and colour coding as specified in Schedule I; (8) The occupier shall make available the annual report on its web-site and all health care facilities shall make own website within two years from the date of notification of these rules;
Rule 5	**Duties of the operator of a common bio-medical waste treatment and disposal facility:-** (1) The operator shall take all necessary steps to ensure that the bio-medical waste collected from the occupier is transported, handled, stored, treated and disposed of, without any adverse effect to the human health and the environment, in accordance with these rules and guidelines issued by the Central Government or, as the case may be, the central pollution control board from time to time; (2) The operator shall ensure timely collection of bio-medical waste from the occupier as prescribed under these rules; (3) The operator shall establish bar coding and global positioning system for handling of bio- medical waste within one year; (4) The operator shall ensure occupational safety of all its workers involved in handling of bio-medical waste by providing appropriate and adequate personal protective equipment; (5) The operator shall maintain a log book for each of its treatment equipment according to weight of batch; categories of waste treated;

	time, date and duration of treatment cycle and total hours of operation; (6) The operator of the common bio-medical waste treatment facility shall ensure collection of biomedical waste on holidays also;
Rule 6	**Duties of authorities :-** The Authority specified in column (2) of Schedule-III shall perform the duties as specified in column (3) thereof in accordance with the provisions of these rules.
Rule 7	**Treatment and disposal :-** (a) Bio-medical waste shall be treated and disposed of in accordance with Schedule I, and in compliance with the standards provided in Schedule-II by the health care facilities and common bio-medical waste treatment facility. (b) The occupier shall hand over segregated waste as per the Schedule-I to common bio-medical waste treatment facility for treatment, processing and final disposal: (c) Every operator of common bio-medical waste treatment facility shall set up requisite biomedical waste treatment equipments like incinerator, autoclave or microwave, shredder and effluent treatment plant as a part of treatment, prior to commencement of its operation. (d) The Occupier or Operator of a common bio-medical waste treatment facility shall maintain a record of recyclable wastes referred to in sub-rule (9) which are auctioned or sold and the same shall be submitted to the prescribed authority as part of its annual report. The record shall be open for inspection by the prescribed authorities. (e) After ensuring treatment by autoclaving or microwaving followed by mutilation or shredding, whichever is applicable, the recyclables from the treated bio-medical wastes such as plastics and glass shall be given to such recyclers having valid authorisation or registration from the respective prescribed authority. (f) The handling and disposal of all the mercury waste and lead waste shall be in accordance with the respective rules and regulations.
Rule 8	**Segregation, packaging, transportation and storage :-** (1) No untreated bio-medical waste shall be mixed with other wastes. (2) The bio-medical waste shall be segregated into containers or bags at the point of generation in accordance with Schedule I prior to its storage, transportation, treatment and disposal. (3) The containers or bags referred to in sub-rule (2) shall be labelled as specified in Schedule IV (4) The operator of common bio-medical waste treatment facility shall transport the bio-medical waste from the premises of an occupier to any off-site bio-medical waste treatment facility only in the vehicles having label as provided in part 'A' of the Schedule IV along with necessary information as specified in part 'B' of the Schedule IV. (5) The vehicles used for transportation of bio-medical waste shall comply with the conditions if any stipulated by the State Pollution

	Control Board or Pollution Control Committee in addition to the requirement contained in the Motor Vehicles Act, 1988 (59 of 1988), if any or the rules made there under for transportation of such infectious waste. (6) Untreated human anatomical waste, animal anatomical waste, soiled waste and, biotechnology waste shall not be stored beyond a period of forty –eight hours: (7) Microbiology waste and all other clinical laboratory waste shall be pre-treated by sterilisation to Log 6 or disinfection to Log 4, as per the World Health Organisation guidelines before packing and sending to the common bio-medical waste treatment facility.
Rule 9	**Prescribed authority :-** (a) The prescribed authority for implementation of the provisions of these rules shall be the State Pollution Control Boards in respect of States and Pollution Control Committees in respect of Union territories. (b) The prescribed authority for enforcement of the provisions of these rules in respect of all health care establishments of the Armed Forces under the Ministry of Defence shall be the Director General, Armed Forces Medical Services, who shall function under the supervision and control of the Ministry of Defence. (c) The prescribed authorities shall comply with the responsibilities as stipulated in Schedule III of these rules.
Rule 10	**Procedure for authorisation :-** (1) Every occupier or operator handling bio-medical waste, irrespective of the quantity shall make an application in Form II to the prescribed authority i.e. State Pollution Control Board for grant of authorisation and the prescribed authority shall grant the provisional authorisation in Form III and the validity of such authorisation for bedded health care facility and operator of a common facility shall be synchronised with the validity of the consents. (2) The authorisation shall be one time for non-bedded occupiers and the authorisation in such cases shall be deemed to have been granted, if not objected by the prescribed authority within a period of ninety days from the date of receipt of duly completed application along with such necessary documents. (3) In case of refusal of renewal, cancellation or suspension of the authorisation by the prescribed authority, the reasons shall be recorded in writing after giving an opportunity of being heard to the applicant before such refusal of the authorisation. (4) Every application for authorisation shall be disposed of by the prescribed authority within a period of ninety days from the date of receipt of duly completed application along with such necessary documents, failing which it shall be deemed that the authorisation is granted under these rules. (5) In case of any change in the bio-medical waste generation, handling, treatment and disposal for which authorisation was earlier granted,

	the occupier or operator shall intimate to the prescribed authority about the change or variation in the activity and shall submit a fresh application in Form II for modification of the conditions of authorisation.
Rule 11	**Advisory Committee :-** (1) Every State Government or Union territory Administration shall constitute an Advisory Committee for the respective State or Union territory under the chairmanship of the respective health secretary to oversee the implementation of the rules in the respective state and to advice any improvements (2) The Advisory Committee constituted under sub-rule (1) and (2) shall meet at least once in six months and review all matters related to implementation of the provisions of these rules in the State and Armed Forces Health Care Facilities, as the case may be.
Rule 12	**Monitoring of implementation of the rules in health care facilities :-** (1) The Ministry of Environment, Forest and Climate Change shall review the implementation of the rules in the country once in a year through the State Health Secretaries and Chairmen or Member Secretary of State Pollution Control Boards and Central Pollution Control Board. (2) The Central Pollution Control Board shall monitor the implementation of these rules in respect of all the Armed Forces health care establishments under the Ministry of Defence. (3) Every State Government or Union territory Administration shall constitute District Level Monitoring Committee in the districts under the chairmanship of District Collector or District Magistrate or Deputy Commissioner or Additional District Magistrate to monitor the compliance of the provisions of these rules in the health care facilities generating bio-medical waste and in the common bio-medical waste treatment and disposal facilities, where the bio-medical waste is treated and disposed of.
Rule 13	**Annual report :-** (a) Every occupier or operator of common bio-medical waste treatment facility shall submit an annual report to the prescribed authority in Form-IV, on or before the 30th June of every year. (b) The Annual Reports shall also be available online on the websites of Occupiers, State Pollution Control Boards and Central Pollution Control Board.
Rule 14	**Maintenance of records :-** Every authorised person shall maintain records related to the generation, collection, reception, storage, transportation, treatment, disposal or any other form of handling of bio-medical waste, for a period of five years, in accordance with these rules and guidelines issued by the Central Government or the Central Pollution Control Board or the prescribed authority as the case may be.

Rule 15	**Accident reporting :-** In case of any major accident at any institution or facility or any other site while handling bio-medical waste, the authorised person shall intimate immediately to the prescribed authority about such accident and forward a report within twenty-four hours in writing regarding the remedial steps taken in Form I.
Rule 16	**Appeal** :- (1) Any person aggrieved by an order made by the prescribed authority under these rules may, within a period of thirty days from the date on which the order is communicated to him, prefer an appeal in Form V to the Secretary (Environment) of the State Government or Union territory administration. (2) The appeal shall be disposed of within a period of ninety days from the date of its filing.
Rule 17	**Site for common bio-medical waste treatment and disposal facility :-** The selection of site for setting up of such facility shall be made in consultation with the prescribed authority, other stakeholders and in accordance with guidelines published by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board.
Rule 18	**Liability of the occupier, operator of a facility** :- The occupier or operator of common bio-medical waste treatment facility shall be liable for action under section 5 and section 15 of these Act, in case of any violation

SCHEDULE I	Biomedical wastes categories and their segregation, collection, treatment, processing and disposal options
SCHEDULE II	Standards for Treatment and Disposal of Bio-Medical Wastes
SCHEDULE III	List of Prescribed Authorities and the Corresponding Duties
SCHEDULE IV	Label for Bio-Medical Waste Containers or Bags
FORM - 1	Accident Reporting
FORM - 2	Application form for Authorisation or Renewal of Authorisation
FORM - 3	Authorisation Format
FORM - 4	Annual Report
FORM - 5	Application for filing appeal against order passed by the prescribed authority

SCHEDULE I
[See rules 3 (e), 4(b), 7(1), 7(2), 7(5), 7 (6) and 8(2)]
[Part-1]

Biomedical wastes categories and their segregation, collection, treatment, processing and disposal options

Category	**Type of Waste**	**Type of Bag or Container to be used**	**Treatment and Disposal options**
(1)	**(2)**	**(3)**	**(4)**
Yellow	**(a) Human Anatomical Waste:** Human tissues, organs, body parts and fetus below the viability period (as per the Medical Termination of Pregnancy Act 1971, amended from time to time).	Yellow coloured non-chlorinated plastic bags	Incineration or Plasma Pyrolysis or deep burial*
	(b)Animal Anatomical Waste : Experimental animal carcasses, body parts, organs, tissues, including the waste generated from animals used in experiments or testing in veterinary hospitals or colleges or animal houses.		
	(c) Soiled Waste: Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components		Incineration or Plasma Pyrolysis or deep burial* In absence of above facilities, autoclaving or micro-waving/ hydroclaving followed by shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent for energy recovery

	(d) Expired or Discarded Medicines: Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs along with glass or plastic ampoules, vials etc.	Yellow coloured non-chlorinated plastic bags or containers	Expired `cytotoxic drugs and items contaminated with cytotoxic drugs to be returned back to the manufacturer or supplier for incineration at temperature >1200 ^{0}C or to common bio-medical waste treatment facility or hazardous waste treatment, storage and disposal facility for incineration at >1200^{0}C Or Encapsulation or Plasma Pyrolysis at >1200^{0}C. All other discarded medicines shall be either sent back to manufacturer or disposed by incineration.
	(e) Chemical Waste: Chemicals used in production of biological and used or discarded disinfectants.	Yellow coloured containers or non-chlorinated plastic bags	Disposed of by incineration or Plasma Pyrolysis or Encapsulation in hazardous waste treatment, storage and disposal facility.
	(f) Chemical Liquid Waste : Liquid waste generated due to use of chemicals in production of biological and used or discarded disinfectants, Silver X-ray film developing liquid, discarded Formalin, infected secretions, aspirated body fluids**,** liquid from laboratories and floor washings, cleaning, house-keeping and disinfecting activities etc.	Separate collection system leading to effluent treatment system	After resource recovery, the chemical liquid waste shall be pre-treated before mixing with other wastewater. The combined discharge shall conform to the discharge norms given in Schedule- III.

	(g) Discarded linen, mattresses, beddings contaminated with blood or body fluid.	Non-chlorinated yellow plastic bags or suitable packing material	Non- chlorinated chemical disinfection followed by incineration or Plazma Pyrolysis or for energy recovery. In absence of above facilities, shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent for energy recovery or incineration or Plazma Pyrolysis.
	(h) Microbiology, Biotechnology and other clinical laboratory waste: Blood bags, Laboratory cultures, stocks or specimens of micro-organisms, live or attenuated vaccines, human and animal cell cultures used in research, industrial laboratories, production of biological, residual toxins, dishes and devices used for cultures.	Autoclave safe plastic bags or containers	Pre-treat to sterilize with non-chlorinated chemicals on-site as per National AIDS Control Organisation or World Health Organisation guidelines thereafter for Incineration.
Red	**Contaminated Waste (Recyclable)** (a) Wastes generated from disposable items such as tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes (without needles and *fixed needle syringes*) and vaccutainers with their needles cut) and gloves.	Red coloured non-chlorinated plastic bags or containers	Autoclaving or micro-waving/ hydroclaving followed by shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent to registered or authorized recyclers or for energy recovery or plastics to diesel or fuel oil or for road making, whichever is possible. Plastic waste should not be sent to landfill sites.

White (Translucent)	**Waste sharps including Metals:** Needles, syringes with fixed needles, needles from needle tip cutter or burner, scalpels, blades, or any other contaminated sharp object that may cause puncture and cuts. This includes both used, discarded and contaminated metal sharps	Puncture proof, Leak proof, tamper proof containers	Autoclaving or Dry Heat Sterilization followed by shredding or mutilation or encapsulation in metal container or cement concrete; combination of shredding cum autoclaving; and sent for final disposal to iron foundries (having consent to operate from the State Pollution Control Boards or Pollution Control Committees) or sanitary landfill or designated concrete waste sharp pit.
Blue	**(a) Glassware:** Broken or discarded and contaminated glass including medicine vials and ampoules except those contaminated with cytotoxic wastes.	Cardboard boxes with blue colored marking	Disinfection (by soaking the washed glass waste after cleaning with detergent and Sodium Hypochlorite treatment) or through autoclaving or microwaving or hydroclaving and then sent for recycling.
	(b) Metallic Body Implants	Cardboard boxes with blue colored marking	

[*]**Disposal by deep burial is permitted only in rural or remote areas where there is no access to common bio-medical waste treatment facility. This will be carried out with prior approval from the prescribed authority and as per the Standards specified in Schedule-III. The deep burial facility shall be located as per the provisions and guidelines issued by Central Pollution Control Board from time to time.**

Part -2

(1) All plastic bags shall be as per BIS standards as and when published, till then the prevailing Plastic Waste Management Rules shall be applicable.

(2) Chemical treatment using at least 10% Sodium Hypochlorite having 30% residual chlorine for twenty minutesor any other equivalent chemical reagent that should demonstrate $Log_{10}4$ reduction efficiency for microorganisms as given in Schedule- III.

(3) Mutilation or shredding must be to an extent to prevent unauthorized reuse.

(4) There will be no chemical pretreatment before incineration, except for microbiological, lab and highly infectious waste.

(5) Incineration ash (ash from incineration of any bio-medical waste) shall be disposed through hazardous waste treatment, storage and disposal facility, if toxic or

hazardous constituents are present beyond the prescribed limits as given in the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 or as revised from time to time.

(6) Dead Fetus below the viability period (as per the Medical Termination of Pregnancy Act 1971, amended from time to time) can be considered as human anatomical waste. Such waste should be handed over to the operator of common bio-medical waste treatment and disposal facility in yellow bag with a copy of the official Medical Termination of Pregnancy certificate from the Obstetrician or the Medical Superintendent of hospital or healthcare establishment.

(7) Cytotoxic drug vials shall not be handed over to unauthorised person under any circumstances.

These shall be sent back to the manufactures for necessary disposal at a single point. As a second option, these may be sent for incineration at common bio-medical waste treatment and disposal facility or TSDFs or plasma pyrolys is at temperature >1200 ^{0}C.

(8) Residual or discarded chemical wastes, used or discarded disinfectants and chemical sludge can be disposed at hazardous waste treatment, storage and disposal facility. In such case, the waste should be sent to hazardous waste treatment, storage and disposal facility through operator of common bio-medical waste treatment and disposal facility only.

(9) On-site pre-treatment of laboratory waste, microbiological waste, blood samples, blood bags should be disinfected or sterilized as per the Guidelines of World Health Organisation or National AIDS Control Organisation and then given to the common bio-medical waste treatment and disposal facility.

(10) Installation of in-house incinerator is not allowed. However in case there is no common biomedical facility nearby, the same may be installed by the occupier after taking authorisation from the State Pollution Control Board.

(11) Syringes should be either mutilated or needles should be cut and or stored in tamper proof, leak proof and puncture proof containers for sharps storage. Wherever the occupier is not linked to a disposal facility it shall be the responsibility of the occupier to sterilize and dispose in the manner prescribed.

(12) Bio-medical waste generated in households during healthcare activities shall be segregated as per these rules and handed over in separate bags or containers to municipal waste collectors. Urban Local Bodies shall have tie up with the common bio-medical waste treatment and disposal facility to pickup this waste from the Material Recovery Facility (MRF) or from the house hold directly, for final disposal in the manner as prescribed in this Schedule.

5.7 DELEGATION OF 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)	(i)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.	<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.	"General conditions shall apply except for project or activity of less than 5ha of mining lease area: Provided that the above exception shall not apply for project or activity if the sum total of the mining lease area of the said project or activity and that of existing operating mines and mining projects which were accorded environment clearance and are located within 500 metres from the periphery of such project or activity

1(a)	(ii) Slurry pipelines (coal lignite and other ores) passing through national parks/or sanctuaries / or coral reefs, ecologically sensitive areas.	Asbestos mining irrespective of mining area. **All projects.**		**Note:** (i) Prior environmental clearance is required at the stage of renewal of mine lease for which an application shall be made upto two years prior to the date due for renewal. "Provided that no fresh environmental clearance shall be required for a mining project or activity at the time of renewal of mining lease, which has already obtained environmental clearance, under this notification". (ii) Mineral prospecting is exempted".
1(c)	River Valley projects	(i) ≥ 50 MW hydroelectric power generation; (ii) ≥ 10,000 ha. of cultivable command area	(i) < 50 MW ≥ 25 MW hydroelectric power generation; (ii) < 10,000 ha. of cultivable command area	General condition 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/ naphtha & 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) <20 MW > 15 MW (based on biomass or non hazardous municipal solid waste as fuel)	General condition shall apply Note: i) Power plants upto 15 MW, based on biomass and using auxiliary fuel such as coal/lignite/ petroleum products up to 15% are exempt. ii) Power plants upto 15 MW, based on non-hazardous municipal waste using auxiliary fuel such as coal /lignite/ petroleum products up to 15% are exempt. (iii) Power plants using waste heat boilers without any auxillary fuel are exempt.”
1(e)	Nuclear power projects and processing of	All projects	-	-
2		**Primary Processing**		
2(a)	Coal washeries	≥ 1 million ton/annum throughput of coal	<1million ton/annum throughput of coal	General Condition 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**		
(1)	**(2)**	**(3)**	**(4)**	**(5)**
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 <200TP 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 HSM Rules, 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 30000 tonnes per annum (TPA) would require environmental clearance. (iii) Plants/units other than power plants (given against entry no.1(d) of 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**		
(1)	**(2)**	**(3)**	**(4)**	**(5)**
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 located outside the notified industrial area/ estate	(i) All projects irrespective of the size if it is located in Notified Industrial Area/Estate. (ii) <300 TPD and located outside a Notified Industrial Area/Estate	General as well as specific conditions 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 outside the industrial	All new or expansion of projects located within a notified industrial area/ estate	General as well as specific conditions 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 outside the notified industrial area/ estate	Located in a notified industrial area/ estate	General as well as Specific conditions 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 outside the notified industrial area/ estate	Located in a notified industrial area/ estate	General as well as Specific conditions 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 without 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 and handling of hazardous chemicals (as per threshold planning quantity indicated in column 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 airstrips, which are for commercial use.		Note: 1. Airstrips, 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	Industrial estate housing at least one category B industry and area <500 ha Industrial estates of area > 500 ha and not housing any	General as well as specific Conditions shall apply. Note: 1) Industrial Estate of area below 500 ha and not housing any industry of Category A or B does not require clearance. 2) If the area is less

		estates with area greater than 500 ha .and housing at least one category B industry	industry belonging to Category A or B	than 500 ha but contains building and construction projects >20,000 sq. mtr. 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 and 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 harbors)	<5 million TPA of cargo handling capacity and/or ports/ harbors ≥10,000 TPA of fish handling capacity	General Condition shall apply Note: 1. Capital dredging inside and outside the ports or harbors and channels are included. 2. Maintenance dredging is exempt provided it formed part of the original proposal for which environmental management plan (EMP) was prepared and environmental clearance obtained.

7 (f)	Highways	i) New national highways and "ii) Expansion of National Highways greater than 100km involving additional right of way or land acquisition greater than 40m on existing alignments and 60m on re-alignments or by-passes."	(i) "All New State Highway Projects". (ii) State Highways expansion projects in hilly terrain (above 1000 m AMSL) and or in ecologically sensitive areas	"General condition shall apply. Note: Highways include expressways".
7 (g)	Aerial ropeways	(i) All projects located at altitude of 1000 mtr 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	The term "built up area" for the purpose of this notification the built up or covered area on all floors put together including its basement and other service areas, which are proposed in the building or construction projects. **Note1**- The projects or activities shall not include industrial shed, school, college, hostel for educational institution, but such buildings shall ensure sustainable environmental management, solid and liquid waste management, rain water harvesting and may use recycled materials such as fly ash bricks. Note 2 – "General conditions" shall not apply.

8(b)	Townships and Area Development projects.		Covering an area of >50 ha and or built up area > 1,50,000 sq. mtrs	A project of Township and Area Development Projects covered under this item shall require an Environment Assessment report and be appraised as Category 'B1' Project. Note: "General Conditions" shall not apply.

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 notified under the Wildlife (Protection) Act, 1972; (ii) Critically polluted areas as identified by the Central Pollution Control Board from time to time; (iii) Eco-sensitive areas as notified under section 3 of the Environment (Protection) Act, 1986, such as, Mahabaleshwar, Panchgani, Matheran, Pachmarhi, Dahanu, Doon Valley, 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 within 10 km of the area 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).

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</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td colspan="3">(IS-269/8112/12269) content.</td></tr>
<tr><td>Para 1[D)</td><td colspan="3">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 colspan="3">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 colspan="3">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 colspan="3">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 Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (MoEF Notification GSR No. 395(E) Dated 4.4.2016)

Salient Features

Rule 2	**Application :-** These rules shall apply to the management of hazardous and other wastes as specified in the Schedules to the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
Rule 3	**Definitions :-**
	"**hazardous waste**" means any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances, and shall include - (i) waste specified under column (3) of Schedule I; (ii) waste having equal to or more than the concentration limits specified for the constituents in class A and class B of Schedule II or any of the characteristics as specified in class C of Schedule II; and (iii) wastes specified in Part A of Schedule III in respect of import or export of such wastes or the wastes not specified in Part A but exhibit hazardous characteristics specified in Part C of Schedule III;
	"**other wastes"** means wastes specified in Part B and Part D of Schedule III for import or export and includes all such waste generated indigenously within the country;
	"**occupier**" in relation to any factory or premises, means a person who has, control over the affairs of the factory or the premises and includes in relation to any hazardous and other wastes, the person in possession of the hazardous or other waste;
	"**actual user**" means an occupier who procures and processes hazardous and other waste for reuse, recycling, recovery, pre-processing, utilisation including co-processing;
	'common treatment, storage and disposal facility" means a common facility identified and established individually or jointly or severally by the State Government, occupier, operator of a facility or any association of occupiers that shall be used as common facility by multiple occupiers or actual users for treatment, storage and disposal of the hazardous and other wastes
	"**importer**" mean any person or occupier who imports hazardous or other waste
	"**exporter**" means any person or occupier under the jurisdiction of the exporting country who exports hazardous or other wastes, including the country which exports hazardous or other waste
	"**pre-processing**" means the treatment of waste to make it suitable for co-

	processing or recycling or for any further processing;
	"**co-processing**" means the use of waste materials in manufacturing processes for the purpose of energy or resource recovery or both and resultant reduction in the use of conventional fuels or raw materials or both through substitution
	"**recycling**" means reclamation and processing of hazardous or other wastes in an environmentally sound manner for the originally intended purpose or for other purposes;
	"**reuse**" means use of hazardous or other waste for the purpose of its original use or other use;
	"**recovery**" means any operation or activity wherein specific materials are recovered;
	"**utilisation**" means use of hazardous or other waste as a resource
	"**storage**" mean storing any hazardous or other waste for a temporary period, at the end of which such waste is processed or disposed of;
	"**transport**" means off-site movement of hazardous or other wastes by air, rail, road or water;
	"**transboundary movement**" means any movement of hazardous or other wastes from an area under the jurisdiction of one country to or through an area under the jurisdiction of another country or to or through an area not under the jurisdiction of any country, provided that at least two countries are involved in the movement;
	"**manifest**" means transporting document prepared and signed by the sender authorised in accordance with the provisions of these rules
	"treatment" means a method, technique or process, designed to modify the physical, chemical or biological characteristics or composition of any hazardous or other waste so as to reduce its potential to cause harm;
	"**disposa**l" means any operation which does not lead to reuse, recycling, recovery, utilisation including co-processing and includes physico-chemical treatment, biological treatment, incineration and disposal in secured landfill;
	"**authorisation**" means permission for generation, handling, collection, reception, treatment, transport, storage, reuse, recycling, recovery, pre-processing, utilisation including co-processing and disposal of hazardous wastes granted under sub-rule (2) of rule 6;
Rule 4	**Responsibilities of the occupier for management of hazardous and other wastes:-** (1) The occupier shall be responsible for safe and environmentally sound management of hazardous and other wastes. (2) The occupier shall follow the following steps for the management of hazardous and other wastes:-

	a. prevention; b. minimization; c. reuse, d. recycling; e. recovery, utilisation including co-processing; f. safe disposal. (3) The hazardous and other wastes generated in the establishment of an occupier shall be sent or sold to an authorised actual user or shall be disposed of in an authorised disposal facility.
Rule 5	**Responsibilities of State Government for environmentally sound management of hazardous and other wastes:-** The State Government shall ensure earmarking or allocation of industrial space or shed for recycling, pre-processing and other utilisation of hazardous or other waste in the existing and upcoming industrial park, estate and industrial clusters.
Rule 6	**Grant of authorisation for managing hazardous and other wastes.-** (1) Every occupier of the facility who is engaged in handling, generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, co-processing, utilisation, offering for sale, transfer or disposal of the hazardous and other wastes shall make an application in **Form 1** to obtain authorisation from the State Pollution Control Board. (2) An authorisation in **Form 2** shall be granted by the State Pollution Control Board with validity period of five years after through site inspection and after ensuring technical capabilities and equipment complying with the standard operating procedure or other guidelines within a period of one hundred and twenty days. (3) Every occupier authorised under these rules, shall maintain a record of hazardous and other wastes managed 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 the financial year to which that return relates. (4) An application for renewal of authorisation shall be made three months in advance before its expiry
Rule 7	**Power to suspend or cancel an authorisation:-** (a) The State Pollution Control Board may suspend the authorisation issued after giving a reasonable opportunity of being heard and after recording reasons thereof in writing if the holder of the authorisation has failed to comply with any of the conditions of the authorisation issued or with any provisions of the Act or these rules as it considers necessary in the public interest. (b) Upon suspension or cancellation of the authorisation, the State Pollution Control Board may give directions to the person whose authorisation has been suspended or cancelled for the safe storage and management of the hazardous and other wastes, and such

	occupier shall comply with such directions.
Rule 8	**Storage of hazardous and other wastes:-** The occupiers of facilities may store the hazardous and other wastes for a period not exceeding ninety days and shall maintain a record of sale, transfer, storage, recycling, recovery, pre-processing, co-processing and utilisation of such wastes and make these records available for inspection.
Rule 9	**Utilisation of hazardous and other wastes:-** The utilisation of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use, including within the premises of the generator (if it is not part of process), shall be carried out only after obtaining authorisation from the State Pollution Control Board in respect of waste on the basis of standard operating procedures or guidelines provided by the Central Pollution Control Board.
Rule 10	**Standard Operating Procedure or guidelines for actual users:-** The Ministry of Environment, Forest and Climate Change or the Central Pollution Control Board may issue guidelines or standard operating procedures for environmentally sound management of hazardous and other wastes from time to time.
Rule 11	**Import and export (transboundary movement) of hazardous and other wastes:-** The Ministry of Environment, Forest and Climate Change shall be the nodal Ministry to deal with the transboundary movement of the hazardous and other wastes in accordance with the provisions of these rules.
Rule 12	**Strategy for Import and export of hazardous and other wastes.-** No import of the hazardous and other wastes from any country to India for disposal shall be permitted. (a) The import of hazardous and other wastes from any country shall be permitted only for recycling, recovery, reuse and utilisation including co-processing. (b) The import of hazardous waste in Part A of Schedule III may be allowed to actual users with the prior informed consent of the exporting country and shall require the permission of the Ministry of Environment, Forest and Climate Change. (c) The import of other wastes in Part B of Schedule III may be allowed to actual users with the permission of the Ministry of Environment, Forest and Climate Change. (d) The import of other wastes in Part D of Schedule III will be allowed as per procedure given in rule 13 and as per the note below the said Schedule. (e) No import of the hazardous and other wastes specified in Schedule VI shall be permitted. (f) The export of hazardous and other wastes from India listed in Part A and Part B of Schedule III and Schedule VI shall be with the permission of Ministry of Environment, Forest and Climate Change.

	In case of applications for export of hazardous and other waste listed in Part A of Schedule III and Schedule VI, they shall be considered on the basis of prior informed consent of the importing country. (g) The import and export of hazardous and other wastes not specified in Schedule III, but exhibiting the hazardous characteristics outlined in Part C of Schedule III shall require prior written permission of the Ministry of Environment, Forest and Climate Change before it is imported to or exported from India, as the case may be.
Rule 13	**Procedure for import of hazardous and other wastes** 1. Actual users intending to import or transit for transboundary movement of hazardous and other wastes specified in Part A and Part B of Schedule III shall apply in **Form 5** along with the documents listed therein, to the Ministry of Environment, Forest and Climate Change for the proposed import together with the prior informed consent of the exporting country in respect of Part A of Schedule III waste, and shall send a copy of the application, simultaneously, to the concerned State Pollution Control Board for information and the acknowledgement in this respect from the concerned State Pollution Control Board shall be submitted to the Ministry of Environment, Forest and Climate Change along with the application. 2. For the import of other wastes listed in Part D of Schedule III, the importer shall not require the permission of the Ministry of Environment, Forest and Climate Change. However, the importer shall furnish the required information as per **Form 6** to the Customs authorities. 3. The importer of the hazardous and other wastes shall maintain records of the hazardous and other waste imported by him in **Form 3** and the record so maintained shall be made available for inspection. 4. The importer of the hazardous and other wastes shall file an annual return in **Form 4** to the State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates.
Rule 14	**Procedure for Export of hazardous and other wastes from India** (a) Any occupier intending to export waste specified in Part A of Schedule III, Part B of Schedule III and Schedule VI, shall make an application in **Form 5** along with insurance cover to the Ministry of Environment, Forest and Climate Change for the proposed transboundary movement of the hazardous and other wastes together with the prior informed consent in writing from the importing country in respect of wastes specified in Part A of Schedule III and Schedule VI. (b) The exporter shall also ensure that the shipment is accompanied with movement document in **Form 6.** (c) The exporter of the hazardous and other wastes shall maintain the

	records of the hazardous or other waste exported by him in **Form 3** and the record so maintained shall be available for inspection.
Rule 15	**Illegal Traffic** The export and import of hazardous or other wastes from and into India, respectively shall be deemed illegal, if it is without permission of the Central Government in accordance with these rules; or it does not conform to the shipping details provided in the movement documents; or it results in deliberate disposal (i.e., dumping) of hazardous or other waste in contravention of the Basel Convention and of general principles of international or domestic law.
Rule 16	**Treatment, storage and disposal facility for hazardous and other wastes** (1) The State Government, occupier, operator of a facility or any association of occupiers shall individually or jointly or severally be responsible for identification of sites for establishing the facility for treatment, storage and disposal of the hazardous and other waste 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. (3) The State Pollution Control Board shall monitor the setting up and operation of the common or captive treatment, storage and disposal facility, regularly (4) The operator of common facility or occupier of a captive facility shall be responsible for safe and environmentally sound operation of the facility and its closure and post closure phase, as per guidelines or standard operating procedures issued by the Central Pollution Control Board from time to time (5) The operator of common facility or occupier of a captive facility shall maintain records of hazardous and other wastes handled by him in **Form 3.** (6) The operator of common facility or occupier of a captive facility shall file an annual return in **Form 4** to the State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates.
Rule 17	**Packaging and Labelling** The hazardous and other wastes shall be packaged in a manner suitable for safe handling, storage and transport as per the guidelines issued by the Central Pollution Control Board from time to time. The labelling shall be done as per **Form 8.** The label shall be of non-washable material, weather proof and easily visible.
Rule 18	**Transportation of hazardous and other wastes** The transport of the hazardous and other waste shall be in accordance

	with the provisions of these rules and the rules made by the Central Government under the Motor Vehicles Act, 1988 and the guidelines issued by the Central Pollution Control Board from time to time in this regard. The occupier shall provide the transporter with the relevant information in **Form 9,** regarding the hazardous nature of the wastes and measures to be taken in case of an emergency and shall label the hazardous and other wastes containers as per **Form 8**. In case of transportation of hazardous and other waste for final disposal to a facility existing in a State other than the State where the waste is generated, the sender shall obtain 'No Objection Certificate' from the State Pollution Control Board of both the States.
Rule 19	**Manifest system** (Movement Document) for hazardous and other waste to be used within the country only The sender of the waste shall prepare seven copies of the manifest in **Form 10** comprising of colour code indicated below and all seven copies shall be signed by the sender:
Rule 20	**Records and returns** The occupier handling hazardous or other wastes and operator of disposal facility shall maintain records of such operations in **Form 3.** (2) The occupier handling hazardous and other wastes and operator of disposal facility shall send annual returns to the State Pollution Control Board in **Form 4.**
Rule 21	**Responsibility of authorities** The authority specified in column (2) of Schedule VII shall perform the duties as specified in column (3) of the said Schedule subject to the provisions of these rules.
Rule 22	**Accident reporting** Where an accident occurs at the facility of the occupier handling hazardous or other wastes and operator of the disposal facility or during transportation, the occupier or the operator or the transporter shall immediately intimate the State Pollution Control Board through telephone, e-mail about the accident and subsequently send a report in **Form 11.**
Rule 23	**Liability of occupier, importer or exporter and operator of a disposal facility** The occupier, importer or exporter and operator of the disposal facility shall be liable for all damages caused to the environment or third party due to improper handling and management of the hazardous and other waste shall be liable to pay financial penalties as levied for any violation of the provisions under these rules by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.
Rule 24	**Appeal** Any person aggrieved by an order of suspension or cancellation or refusal of authorisation or its renewal passed by the State Pollution Control Board may, prefer an appeal in **Form 12** to the Appellate Authority,

	namely, the Environment Secretary of the State within a period of thirty days.		
SCHEDULE I	List of processes generating hazardous wastes		
SCHEDULE II	List of waste constituents with concentration limits		
SCHEDULE III	**PART-A**	List of hazardous wastes applicable for import and export with Prior Informed Consent	
	PART-B	List of other wastes applicable for import and export and not requiring Prior Informed Consent	
	PART-C	List of Hazardous Characteristics	
	PART-D	List of other wastes applicable for import and export without permission from Ministry of Environment, Forest and Climate Change	
SCHEDULE IV	List of commonly recyclable hazardous wastes		
SCHEDULE V	**PART-A**	Specifications of Used Oil Suitable for recycling	
	PART-B	Specification of fuel derived from waste oil	
SCHEDULE VI	Hazardous and Other wastes prohibited for import		
SCHEDULE VII	List of authorities and corresponding duties		
SCHEDULE VIII	List of documents for verification by Customs for import of other wastes specified in Part D of Schedule III		
FORM 1	Application Form for apply for Authorisation under HWM Rules, 2016		
FORM 2	Form for grant or renewal of Authorisation by State Pollution Control Board		
FORM 3	Format for maintaining records of Hazardous and Other Wastes		
FORM 4	Form for filing Annual Returns		
FORM 5	Application for Import or Export of Hazardous and Other Waste for reuse or recycling or recovery or co-processing or utilisation		
FORM 6	Transboundary Movement – Movement Document		
FORM 7	Application form for ONE TIME Authorisation of Traders for Part-D of Schedule III, Waste.		
FORM 8	Labelling of Containers of Hazardous and Other Waste		
FORM 9	Transport Emergency (TREM) Card		
FORM 10	Manifest for Hazardous and Other Waste		
FORM 11	Format for Reporting Accident		
FORM 12	Application for filing APPEAL against the Order passed by State Pollution Control Board		

SCHEDULE I

[See rule 3 (1) (17) (i)]

List of processes generating hazardous wastes

S.No.	Processes	Hazardous Waste*
(1)	(2)	(3)
1.	Petrochemical processes and pyrolytic operations	1.1 Furnace or reactor residue and debris 1.2 Tarry residues and still bottoms from distillation 1.3 Oily sludge emulsion 1.4 Organic residues 1.5 Residues from alkali wash of fuels 1.6 Spent catalyst and molecular sieves 1.7 Oil from wastewater treatment
2.	Crude oil and natural gas production	2.1 Drill cuttings excluding those from water based mud 2.2 Sludge containing oil 2.3 Drilling mud containing oil
3.	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.1 cargo residue, washing water and sludge containing oil 3.2 cargo residue and sludge containing chemicals 3.3 Sludge and filters contaminated with oil 3.4 Ballast water containing oil from ships
4.	Petroleum refining or re-processing of used oil or recycling of waste oil	4.1 Oil sludge or emulsion 4.2 Spent catalyst 4.3 Slop oil 4.4 Organic residue from processes 4.5 Spent clay containing oil
5.	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1 Used or spent oil 5.2 Wastes or residues containing oil 5.3 Waste cutting oils
6.	Secondary production and / or industrial use of zinc	6.1 Sludge and filter press cake arising out of production of Zinc Sulphate and other Zinc Compounds. 6.2 Zinc fines or dust or ash or skimmings in dispersible form 6.3 Other residues from processing of zinc ash or skimmings 6.4 Flue gas dust and other particulates
7.	Primary production of zinc or lead or 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 Sludge 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 or particulate from flue gas 9.3 Acid from used batteries
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 aluminum	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 Drosses and waste from treatment of salt sludge 11.6 Used anode butts 11.7 Vanadium sludge from alumina refineries
12.	Metal surface treatment, such as etching, staining, polishing, galvanizing, cleaning, degreasing, plating, etc.	12.1 Acidic and alkaline residues 12.2 Spent acid and alkali 12.3 Spent bath and 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 furnace; steel rolling and finishing mills; Coke oven and by products plant)	13.1 Spent pickling liquor 13.2 Sludge from acid recovery unit 13.3 Benzol acid sludge 13.4 Decanter tank tar sludge 13.5 Tar storage tank residue 13.6 Residues from coke oven by product plant.
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 or particulates from exhaust gas treatment.
16.	Production of caustic soda and chlorine	16.1 Mercury bearing sludge generated from mercury cell process 16.2 Residue or sludges and filter cakes 16.3 Brine sludge
17.	Production of mineral acids	17.1 Process acidic residue, filter cake, dust 17.2 Spent catalyst
18.	Production of nitrogenous and complex fertilizers	18.1 Spent catalyst 18.2 Carbon residue 18.3 Sludge or residue containing arsenic 18.4 Chromium sludge from water cooling

		tower
19.	Production of phenol	19.1 Residue or sludge containing phenol 19.2 Spent catalyst
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 20.4 Process Sludge
21.	Production and/or industrial use of paints, pigments, lacquers, varnishes and inks	21.1 Process wastes, residues and sludges 21.2 Spent solvent
22.	Production of plastics	22.1 Spent catalysts 22.2 Process residues
23.	Production and /or industrial use of glues, organic cements, adhesive and resins	23.1 Wastes or residues (not made with vegetable or animal materials) 23.2 Spent solvents
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, toxic metals, organic compounds 26.2 Dust from air filtration system 26.3 Spent acid 26.4 Spent solvent 26.5 Spent catalyst
27.	Production of organic-silicone compound	27.1 Process residues
28.	Production/formulation of drugs/pharmaceutical and health care product	28.1 Process Residue and wastes 28.2 Spent catalyst 28.3 Spent carbon 28.4 Off specification products 28.5 Date-expired products 28.6 Spent solvents
29.	Production, and formulation of pesticides including stock-piles	29.1 Process wastes or residues 29.2 Sludge containing residual pesticides 29.3 Date-expired and off-specification pesticides 29.4 Spent solvents 29.5 Spent catalysts 29.6 Spent acids
30.	Leather tanneries	30.1 Chromium bearing residue and sludge
31.	Electronic Industry	31.1 Process residue and wastes 31.2 Spent etching chemicals and solvents
32.	Pulp and 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.	Handling of hazardous chemicals and wastes	33.1 Empty barrels/containers/liners contaminated with hazardous chemicals /wastes 33.2 Contaminated cotton rags or other cleaning materials
34.	De-contamination of barrels / containers used for handling of hazardous wastes/chemicals	34.1 Chemical-containing residue arising from decontamination. 34.2 Sludge from treatment of waste water arising out of cleaning / disposal of barrels / containers
35.	Purification and treatment of exhaust air/gases, water and waste water from the processes in this schedule and common industrial effluent treatment plants (CETP's)	35.1 Exhaust Air or Gas cleaning residue 35.2 Spent ion exchange resin containing toxic metals 35.3 Chemical sludge from waste water treatment 35.4 Oil and grease skimming 35.5 Chromium sludge from cooling water
36.	Purification process for organic compounds/solvents	36.1 Any process or distillation residue 36.2 Spent carbon or filter medium
37.	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.1 Sludge from wet scrubbers 37.2 Ash from incinerator and flue gas cleaning residue 37.3 Concentration or evaporation residues
38.	Chemical processing of Ores containing heavy metals such as Chromium, Manganese, Nickel, Cadmium etc.	38.1 Process residues 38.2 Spent acid

*** The inclusion of wastes contained in this Schedule does not preclude the use of Schedule II to demonstrate that the waste is not hazardous. In case of dispute, the matter would be referred to the Technical Review Committee constituted by Ministry of Environment, Forest and Climate Change.**

Note: *The high volume low effect wastes such as fly ash, Phosphogypsum, red mud, jarosite, Slags from pyrometallurgical operations, mine tailings and ore beneficiation rejects are excluded from the category of hazardous wastes. Separate guidelines on the management of these wastes shall be issued by Central Pollution Control Board.*

SCHEDULE II

[See rule 3 (1) (17) (ii)]

List of waste constituents with concentration limits

Class A: Based on leachable concentration limits [Toxicity Characteristic Leaching Procedure (TCLP) or Soluble Threshold Limit Concentration (STLC)]

Class	Constituents	Concentration in mg/l
(1)	(2)	(3)
A1	Arsenic	5.0
A2	Barium	100.0
A3	Cadmium	1.0
A4	Chromium and/or Chromium (III) compounds	5.0
A5	Lead	5.0
A6	Manganese	10.0
A7	Mercury	0.2
A8	Selenium	1.0
A9	Silver	5.0
A10	Ammonia	50*
A11	Cyanide	20*
A12	Nitrate (as nitrate-nitrogen)	1000.0
A13	Sulphide (as H_2S)	5.0
A14	1,1-Dichloroethylene	0.7
A15	1,2-Dichloroethane	0.5
A16	1,4-Dichlorobenzene	7.5
A17	2,4,5-Trichlorophenol	400.0
A18	2,4,6-Trichlorophenol	2.0
A19	2,4-Dinitrotoluene	0.13
A20	Benzene	0.5
A21	Benzo (a) Pyrene	0.001
A22	Bromodicholromethane	6.0
A23	Bromoform	10.0
A24	Carbon tetrachloride	0.5
A25	Chlorobenzene	100.0
A26	Chloroform	6.0
A27	Cresol (ortho+ meta+ para)	200.0
A28	Dibromochloromethane	10.0
A29	Hexachlorobenzene	0.13
A30	Hexachlorobutadiene	0.5
A31	Hexachloroethane	3.0
A32	Methyl ethyl ketone	200.0
A33	Naphthalene	5.0
A34	Nitrobenzene	2.0
A35	Pentachlorophenol	100.0
A36	Pyridine	5.0
A37	Tetrachloroethylene	0.7
A38	Trichloroethylene	0.5
A39	Vinyl chloride	0.2
A40	2,4,5-TP (Silvex)	1.0

A41	2,4-Dichlorophenoxyacetic acid	10.0
A42	Alachlor	2.0
A43	Alpha HCH	0.001
A44	Atrazine	0.2
A45	Beta HCH	0.004
A46	Butachlor	12.5
A47	Chlordane	0.03
A48	Chlorpyriphos	9.0
A49	Delta HCH	0.004
A50	Endosulfan (alpha+ beta+ sulphate)	0.04
A51	Endrin	0.02
A52	Ethion	0.3
A53	Heptachlor (& its Epoxide)	0.008
A54	Isoproturon	0.9
A55	Lindane	0.4
A56	Malathion	19
A57	Methoxychlor	10
A58	Methyl parathion	0.7
A59	Monocrotophos	0.1
A60	Phorate	0.2
A61	Toxaphene	0.5
A62	Antimony	15
A63	Beryllium	0.75
A64	Chromium (VI)	5.0
A65	Cobalt	80.0
A66	Copper	25.0
A67	Molybdenum	350
A68	Nickel	20.0
A69	Thallium	7.0
A70	Vanadium	24.0
A71	Zinc	250
A72	Fluoride	180.0
A73	Aldrin	0.14
A74	Dichlorodiphenyltrichloroethane (DDT), Dichlorodiphenyldichloroethylene (DDE), Dichlorodiphenyldichloroethane (DDD)	0.1
A75	Dieldrin	0.8
A76	Kepone	2.1
A77	Mirex	2.1
A78	Polychlorinated biphenyls	5.0
A79	Dioxin (2,3,7,8-TCDD)	0.001

Class B: Based on Total Threshold Limit Concentration (TTLC)

Class	**Constituent**	**Concentration in mg/kg**
(1)	**(2)**	**(3)**
B1	Asbestos	10000

B2	Total Petroleum Hydrocarbons (TPH) (C5 - C36)	5,000

Note:

(1) The testing method for list of constituents at A1 to A61 in Class-A, shall be based on Toxicity Characteristic Leaching Procedure (TCLP) and for extraction of leachable constituents, USEPA Test Method 1311 shall be used.
(2) The testing method for list of constituents at A62 to A79 in Class- A, shall be based on Soluble Threshold Limit Concentration (STLC) and Waste Extraction Test (WET) Procedure given in Appendix II of section 66261 of Title 22 of California Code regulation (CCR) shall be used.
(3) In case of ammonia (A10), cyanide (A11) and chromium VI (A64), extractions shall be conducted using distilled water in place of the leaching media specified in the TCLP/STLC procedures.
(4) A summary of above specified leaching/extraction procedures is included in manual for characterization and analysis of hazardous waste published by Central Pollution Control Board and in case the method is not covered in the said manual, suitable reference method may be adopted for the measurement.
(5) In case of asbestos, the specified concentration limits apply only if the substances are in a friable, powdered or finely divided state.
(6) The hazardous constituents to be analyzed in the waste shall be relevant to the nature of the industry and the materials used in the process.
(7) Wastes which contain any of the constituents listed below shall be considered as hazardous, provided they exhibit the characteristics listed in Class-C of this Schedule :

1.	Acid Amides
2.	Acid anhydrides
3.	Amines
4.	Anthracene
5.	Aromatic compounds other than those listed in Class A
6.	Bromates, (hypo-bromites)
7.	Chlorates (hypo-chlorites)
8.	Carbonyls
9.	Ferro-silicate and alloys
10.	Halogen- containing compounds which produce acidic vapours on contact with humid air or water e.g. silicon tetrachloride, aluminum chloride, titanium tetrachloride
11.	Halogen- silanes
12.	Halogenated Aliphatic Compounds
13.	Hydrazine (s)
14.	Hydrides
15.	Inorganic Acids
16.	Inorganic Peroxides
17.	Inorganic Tin Compounds

18.	Iodates
19.	(Iso- and thio-) Cyanates
20.	Manganese-silicate
21.	Mercaptans
22.	Metal Carbonyls
23.	Metal hydrogen sulphates
24.	Nitrides
25.	Nitriles
26.	Organic azo and azooxy Compounds
27.	Organic Peroxides
28.	Organic Oxygen Compounds
29.	Organic Sulphur Compounds
30.	Organo- Tin Compounds
31.	Organo nitro- and nitroso compounds
32.	Oxides and hydroxides except those of hydrogen, carbon, silicon, iron, aluminum, titanium, manganese, magnesium, calcium
33.	Phenanthrene
34.	Phenolic Compounds
35.	Phosphate compounds except phosphates of aluminum, calcium and iron
36.	Salts of pre-acids
37.	Total Sulphur
38.	Tungsten Compounds
39.	Tellurium and tellurium compounds
40.	White and Red Phosphorus
41.	2-Acetylaminofluorene
42.	4-Aminodiphenyl
43.	Benzidine and its salts
44.	Bis (Chloromethyl) ether
45.	Methyl chloromethyl ether
46.	1,2-Dibromo-3-chloropropane
47.	3,3'-Dichlorobenzidine and its salts
48.	4-Dimethylaminoazobenzene
49.	4-Nitrobiphenyl
50.	Beta-Propiolactone

CLASS C : Based on hazardous Characteristics

Apart from the concentration limit given above, the substances or wastes shall be classified as hazardous waste if it exhibits any of the following characteristics due to the presence of any hazardous constituents:

Class C1: Flammable- A waste exhibits the characteristic of flammability or ignitability if a representative sample of the waste has any of the following properties, namely:-

(i) flammable liquids, or mixture of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc; but

not including substances or wastes otherwise classified on account of their dangerous characteristics), which give off a flammable vapour at temperature less than 60°C. This flash point shall be measured as per ASTM D 93-79 closed-cup test method or as determined by an equivalent test method published by Central Pollution Control Board;

(ii) it is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns vigorously and persistently creating a hazard;

(iii) it is an ignitable compressed gas;

(iv) It is an oxidizer and for the purposes of characterisation is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter.

Class C2: Corrosive- A waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties, namely:-

(i) it is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5;

(ii) it is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm per year at a test temperature of 55 °C;

(iii) it is not aqueous and, when mixed with an equivalent weight of water, produces a solution having a pH less than or equal to 2 or greater than or equal to 12.5;

(iv) it is not a liquid and, when mixed with an equivalent weight of water, produces a liquid that corrodes steel (SAE1020) at a rate greater than 6.35 mm per year at a test temperature of 55 °C.

Note:

For the purpose of determining the corrosivity, the Bureau of Indian Standard 9040 C method for pH determination, NACE TM 01 69 : Laboratory Corrosion Testing of Metals and EPA 1110A method for corrosivity towards steel (SAE1020) to establish the corrosivity characteristics shall be adopted.

Class C3: Reactive or explosive- A waste exhibits the characteristic of reactivity if a representative sample of the waste it has any of the following properties, namely:-

(i) it is normally unstable and readily undergoes violent change without detonating;

(ii) it reacts violently with water or forms potentially explosive mixtures with water;

(iii) when mixed with water, it generates toxic gases, vapours or fumes in a quantity sufficient to present a danger to human health or the environment;

(iv) it is a cyanide or sulphide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapours or fumes in a quantity sufficient to present a danger to human health or the environmental;

(v) it is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;

(vi) it is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure;

(vii) it is a forbidden explosive.

Class C4: Toxic- A waste exhibits the characteristic of toxicity, if, :-

(i) the concentration of the waste constituents listed in Class A and B (of this schedule) are equal to or more than the permissible limits prescribed therein;
(ii) it has an acute oral LD50 less than 2,500 milligrams per kilogram;
(iii) it has an acute dermal LD50 less than 4,300 milligrams per kilogram;
(iv) it has an acute inhalation LC50 less than 10,000 parts per million as a gas or vapour;
(v) it has acute aquatic toxicity with 50% mortality within 96 hours for zebra fish (*Brachidanio rerio*) at a concentration of 500 milligrams per litre in dilution water and test conditions as specified in BIS test method 6582 – 2001.
(vi) it has been shown through experience or by any standard reference test-method to pose a hazard to human health or environment because of its carcinogenicity, mutagenecity, endocrine disruptivity, acute toxicity, chronic toxicity, bio-accumulative properties or persistence in the environment.

Class C5: Substances or Wastes liable to spontaneous combustion - Substances or Wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.

Class C6: Substances or Wastes which, in contact with water emit flammable gases- Substances or Wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

Class C5: Oxidizing - Substances or Wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.

Class C8: Organic Peroxides - Organic substances or Wastes which contain the bivalent O−O structure, which may undergo exothermic self-accelerating decomposition.

Class C9: Poisons (acute) - Substances or Wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.

Class C10: Infectious ~~substances~~ - Substances or Wastes containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.

Class C11: Liberation of toxic gases in contact with air or water - Substances or Wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

Class C12: Eco-toxic- Substances or Wastes which if released, present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation or toxic effects upon biotic systems or both.

Class C13: Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

SCHEDULE III

[See rules 3 (1) (17) (iii), 3 (23), 12, 13 and 14]

Part A

List of hazardous wastes applicable for import and export with Prior Informed Consent [Annexure VIII of the Basel Convention*]

Basel No.	**Description of Hazardous Wastes**
(1)	**(2)**
A1	**Metal and Metal bearing wastes**
A1010	Metal wastes and waste consisting of alloys of any of the following but excluding such wastes specifically listed in Part B and Part D
	- Antimony
	- Cadmium
	- Lead
	- Tellurium
A1020	Waste having as constituents or contaminants, excluding metal wastes in massive form, any or the following:
	- Antimony, antimony compounds
	- Cadmium, cadmium compounds
	- Lead, lead compounds
	- Tellurium, tellurium compounds
A1040	Waste having metal carbonyls as constituents
A1050	Galvanic sludges
A1070	Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.
A1080	Waste zinc residues not included in Part B, containing lead and cadmium in concentrations sufficient to exhibit hazard characteristics indicated in Part C
A1090	Ashes from the incineration of insulated copper wire
A1100	Dusts and residues from gas cleaning systems of copper smelters
A1120	Waste sludges, excluding anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations
A1140	Waste cupric chloride and copper cyanide catalysts not in liquid form note the related entry in Schedule VI
A1150	Precious metal ash from incineration of printed circuit boards not included in Part B
A1160	Waste lead acid batteries, whole or crushed
A1170	Unsorted waste batteries excluding mixtures of only Part B batteries. Waste batteries not specified in Part B containing constituents mentioned in Schedule II to an extent to render them hazardous
A2	**Wastes containing principally inorganic constituents, which may contain metals and organic materials**
A2010	Glass waste from cathode-ray tubes and other activated glasses
A2030	Waste catalysts but excluding such wastes specified in Part B
A3	**Wastes containing principally organic constituents, which may contain metals and inorganic materials**
A3010	Waste from the production or processing of petroleum coke and bitumen
A3020	Waste mineral oils unfit for their originally intended use
A3050	Wastes from production, formulation and use of resins, latex,

	plasticizers, glues or adhesives excluding such wastes specified in Part B (B4020)
A3120	Fluff-light fraction from shredding
A3130	Waste organic phosphorus compounds
A4	**Wastes which may contain either inorganic or organic constituents**
A4010	Wastes from the production, preparation and use of pharmaceutical products but excluding such waste specified in Part B
A4040	Wastes from the manufacture, formulation and use of wood-preserving chemicals (does not include wood treated with wood preserving chemicals)
A4070	Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding those specified in Part B (B4010)
A4100	Wastes from industrial pollution control devices for cleaning of industrial off-gases but excluding such wastes specified in Part B
A4120	Wastes that contain, consist of or are contaminated with peroxides.
A4130	Wastes packages and containers containing Schedule II constituents in concentration sufficient to exhibit Part C of Schedule III hazard characteristics.
A4140	Waste consisting of or containing off specification or outdated chemicals (unused within the period recommended by the manufacturer) corresponding to constituents mentioned in Schedule II and exhibiting Part C of Schedule III hazard characteristics.
A4160	Spent activated carbon not included in Part B, B2060

*This List is based on Annexure VIII of the Basel Convention on Transboundary Movement of Hazardous Wastes and comprises of wastes characterized as hazardous under Article I, paragraph 1(a) of the Convention. Inclusion of wastes on this list does not preclude the use of hazard.
Characteristics given in Annexure VIII of the Basel Convention (Part C of this Schedule) to demonstrate that the wastes are not hazardous. **Hazardous wastes in Part-A are restricted and cannot be allowed to be imported without permission from the Ministry of Environment, Forest and Climate Change and the Directorate General of Foreign Trade license, if applicable.**

Part B

List of other wastes applicable for import and export and not requiring Prior Informed Consent [Annex IX of the Basel Convention*]

Basel No.	**Description of wastes**
(1)	**(2)**
B1	**Metal and metal-bearing wastes**
B1010	Metal and metal-alloy wastes in metallic, non-dispersible form:
	- Thorium scrap
	- Rare earths scrap
B1020	Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plates, beams, rods, etc.), of:
	- Antimony scrap
	- Beryllium scrap
	- Cadmium scrap

	- Lead scrap (excluding lead acid batteries)
	- Selenium scrap
	- Tellurium scrap
B1030	Refractory metals containing residues
B1031	Molybdenum, tungsten, titanium, tantalum, niobium and rhenium metal and metal alloy wastes in metallic dispersible form (metal powder), excluding such wastes as specified in Part A under entry A1050, Galvanic sludges
B1040	Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous
B1050	Mixed non-ferrous metal, heavy fraction scrap, containing cadmium, antimony, lead & tellurium mentioned in Schedule II in concentrations sufficient to exhibit Part C characteristics
B1060	Waste selenium and tellurium in metallic elemental form including powder
B1070	Waste of copper and copper alloys in dispersible form, unless they contain any of the constituents mentioned in Schedule II to an extent that they exhibit Part C characteristics
B1080	Zinc ash and residues including zinc alloys residues in dispersible form unless they contain any of the constituents mentioned in Schedule II in concentration such as to exhibit Part C characteristics
B1090	Waste batteries conforming to a standard battery specification, excluding those made with lead, cadmium or mercury
B1100	Metal bearing wastes arising from melting, smelting and refining of metals:
	- Slags from copper processing for further processing or refining containing arsenic, lead or cadmium
	- Slags from precious metals processing for further refining
	- Wastes of refractory linings, including crucibles, originating from copper smelting
	- Tantalum-bearing tin slags with less than 0.5% tin
B1110	Used Electrical and electronic assemblies other than those listed in Part D of Schedule III
	Electronic assemblies consisting only of metals or alloys Waste electrical and electronic assemblies or scrap (including printed circuit boards) not containing components such as accumulators and other batteries included in Part A of Schedule III, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Schedule II constituents such as cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Part C of
B1120	Spent catalysts excluding liquids used as catalysts, containing any of: Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) in Part A and Schedule VI: - Scandium - Titanium

	- Vanadium - Chromium - Manganese - Iron - Cobalt - Nickel - Copper - Zinc - Yttrium - Zirconium - Niobium - Molybdenum - Hafnium - Tantalum - Tungsten - Rhenium Lanthanides (rare earth metals): - Lanthanum - Cerium
	- Praseodymium - Neodymium - Samarium - Europium - Gadolinium - Terbium - Dysprosium - Holmium - Erbium - Thulium - Ytterbium - Lutetium
B1130	Cleaned spent precious metal bearing catalysts
B1140	Precious metal bearing residues in solid form which contain traces of inorganic cyanides
B1150	Precious metals and alloy wastes (gold , silver, the platinum group but not mercury) in a dispersible form, non-liquid form with appropriate packaging and labelling
B1160	Precious metal ash from the incineration of printed circuit boards (note the related entry in Part A A1150)
B1170	Precious metal ash from the incineration of photographic film
B1180	Waste photographic film containing silver halides and metallic silver
B1190	Waste photographic paper containing silver halides and metallic silver
B1200	Granulated slag arising from the manufacture of iron and steel
B1210	Slag arising from the manufacture of iron and steel including slags as a source of Titanium dioxide and Vanadium
B1220	Slag from zinc production, chemically stabilised, having a high iron content (above 20%) and processed according to industrial specifications mainly for construction
B1230	Mill scale arising from the manufacture of iron and steel
B1240	Copper Oxide mill-scale
B2	**Wastes containing principally inorganic constituents, which may contain metals and organic materials**
B2010	Wastes from mining operations in non-dispersible form:
	- Natural graphite waste
	- Slate wastes
	- Mica wastes
	- Leucite, nepheline and nepheline syenite waste
	- Feldspar waste
	- Fluorspar waste
	- Silica wastes in solid form excluding those used in foundry operations
B2020	Glass wastes in non-dispersible form: - Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses

B2030	Ceramic wastes in non-dispersible form: - Cermet wastes and scrap (metal ceramic composites) - Ceramic based fibres
B2040	Other wastes containing principally inorganic constituents: - Partially refined calcium sulphate produced from flue gas desulphurization (FGD) - Waste gypsum wallboard or plasterboard arising from the demolition of buildings - Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications mainly for construction and abrasive applications - Sulphur in solid form - Limestone from production of calcium cyanamide (pH<9) - Sodium, potassium, calcium chlorides - Carborundum (silicon carbide) - Broken concrete - Lithium-tantalum and lithium-niobium containing glass scraps
B2060	Spent activated carbon not containing any of Schedule II constituents to the extent they exhibit Part C characteristics, for example, carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry in Part A A4160)
B2070	Calcium fluoride sludge
B2080	Waste gypsum arising from chemical industry processes not included in Schedule VI (note the related entry in A2040)
B2090	Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry)
B2100	Waste hydrates of aluminium and waste alumina and residues from alumina production, excluding such materials used for gas cleaning, flocculation or filtration processes
B2130	Bituminous material (asphalt waste) from road construction and maintenance, not containing tar (note the related entry in Schedule VI, A3200)
B3	**Wastes containing principally organic constituents, which may contain metals and inorganic materials**
B3027	Self-adhesive label laminate waste containing raw materials used in label material production
B3030	Textile wastes The following materials, provided they are not mixed with other wastes and are prepared to a specification: - Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock) • not carded or combed • other - Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock • noils of wool or of fine animal hair • other waste of wool or of fine animal hair • waste of coarse animal hair

	- Cotton waste (including yarn waste and garnetted stock)
	  • yarn waste (including thread waste)
	  • garnetted stock
	  • other
	- Flax tow and waste
	- Tow and waste (including yarn waste and garnetted stock) of true hemp (Cannabis sativa L.)
	- Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)
	- Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave
	- Tow, noils and waste (including yarn waste and garneted stock) of coconut
	- Tow, noils and waste (including yarn waste and garneted stock) of abaca (Manila hemp or Musa textilis Nee)
	- Tow, noils and waste (including yarn waste and garneted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included
	- Waste (including noils, yarn waste and garnetted stock) of man-made fibres
	  • of synthetic fibres
	  • of artificial fibres
	- Worn clothing and other worn textile articles
	- Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials
	  • sorted
	  • other

B3035	Waste textile floor coverings, carpets
B3040	Rubber Wastes The following materials, provided they are not mixed with other wastes: - Waste and scrap of hard rubber (e.g., ebonite) - Other rubber wastes (excluding such wastes specified elsewhere)
B3050	Untreated cork and wood waste: - Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms - Cork waste: crushed, granulated or ground cork
B3060	Wastes arising from agro-food industries provided it is not infectious: - Wine lees - Dried and sterilized vegetable waste, residues and by-products, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included - Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes - Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised

	- Fish waste - Cocoa shells, husks, skins and other cocoa waste - Other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption
B3070	The following wastes: - Waste of human hair - Waste straw - Deactivated fungus mycelium from penicillin production to be used as animal feed
B3080	Waste parings and scrap of rubber
B3090	Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry in Schedule VI, A3100)
B3100	Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry in Schedule VI, A3090)
B3110	Fellmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry in Schedule VI, A3110)
B3120	Wastes consisting of food dyes
B3130	Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides
B3140	Waste pneumatic and other tyres, excluding those which do not lead to resource recovery, recycling, reclamation but not for direct reuse
B4	**Wastes which may contain either inorganic or organic constituents**
B4010	Wastes consisting mainly of water-based or latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry in Part A, A4070)
B4020	Wastes from production, formulation and use of resins, latex, plasticizers, glues or adhesives, not listed in Part A, free of solvents and other contaminants to an extent that they do not exhibit Part C characteristics (note the related entry in Part A, A3050)
B4030	Used single-use cameras, with batteries not included in Part A

* This list is based on Annexure IX of the Basel Convention on Transboundary Movement of Hazardous Wastes and comprises of wastes not characterized as hazardous under Article-I of the Basel Convention. **The wastes in Part- B are restricted and cannot be allowed to be imported without permission from the Ministry of Environment, Forest and Climate Change and the Directorate General of Foreign Trade license, if applicable.**

Note:

(1) Copper dross containing copper greater than 65% and lead and Cadmium equal to or less than 1.25% and 0.1% respectively; spent cleaned metal catalyst containing copper; and copper reverts, cake and residues containing lead and cadmium equal to or less than 1.25% and 0.1% respectively are allowed for import without Director General of Foreign Trade license to units (actual users) authorised by State Pollution Control Board and with the Ministry of Environment, Forest and Climate

Change's permission. Copper reverts, cake and residues containing lead and cadmium greater than 1.25% and 0.1% respectively are under restricted category for which import is permitted only against Director General of Foreign Trade license for the purpose of processing or reuse by units permitted with the Ministry of Environment, Forest and Climate Change (actual users).

(2) Zinc ash or skimmings in dispersible form containing zinc more than 65% and lead and cadmium equal to or less than 1.25% and 0.1% respectively and spent cleaned metal catalyst containing zinc are allowed for import without Director General of Foreign Trade license to units authorised by State Pollution control Board, Ministry of Environment, Forest and Climate Change's permission (actual users) upto an annual quantity limit indicated in registration letter. Zinc ash and skimmings containing less than 65% zinc and lead and cadmium equal to or more than 1.25% and 0.1% respectively and hard zinc spelter and brass dross containing lead greater than 1.25% are under restricted category for which import is permitted against Director General of Foreign Trade license and only for purpose of processing or reuse by units registered with the Ministry of Environment Forest and Climate Change (actual users).

Part C
List of Hazardous Characteristics

Code	Characteristic
H 1	**Explosive**

An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surrounding.

H 3 Flammable liquids

The word "flammable" has the same meaning as "inflammable". Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc. but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5°C, closed-cup test, or not more than 65.6°C, open-cup test. (Since the results of open-cups tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition).

H 4.1 Flammable solids

Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.

H 4.2 Substances or wastes liable to spontaneous combustion

Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.

H 4.3 Substances or wastes which, in contact with water emit flammable gases

Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

H 5.1 Oxidizing

Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion or other materials.

H 5.2 Organic Peroxides

Organic substances or wastes which contain the bivalent-o-o-structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.

H 6.1 Poisons (acute)

Substances or wastes liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact.

H 6.2 Infectious substances

Substances or wastes containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.

H 8 Corrosives

Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or, in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.

H 10 Liberation of toxic gases in contact with air or water

Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

H 11 Toxic (delayed or chronic)

Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity).

H 12 Eco-toxic

Substances or wastes which if released, present or may present

immediate or delayed adverse impacts to the environment by means of bioaccumulation or toxic effects upon biotic systems or both.

H 13 **Capable,** by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

Part D

List of other wastes applicable for import and export without permission from Ministry of Environment, Forest and Climate Change [Annex IX of the Basel Convention*]

Basel No.	**Description of wastes**
(1)	**(2)**
B1	**Metal and metal-bearing wastes**
B1010	Metal and metal-alloy wastes in metallic, non-dispersible form :
	- Precious metals (gold, silver, platinum but not mercury) * *
	- Iron and steel scrap * *
	- Nickel scrap * *
	- Aluminium scrap* *
	- Zinc scrap * *
	- Tin scrap * *
	- Tungsten scrap * *
	- Molybdenum scrap * *
	- Tantalum scrap * *
	- Cobalt scrap * *
	- Bismuth scrap * *
	- Titanium scrap * *
	- Zirconium scrap * *
	- Manganese scrap * *
	- Germanium scrap * *
	- Vanadium scrap * *
	- Hafnium scrap * *
	- Indium scrap * *
	- Niobium scrap * *
	- Rhenium scrap * *
	- Gallium scrap * *
	- Magnesium scrap * *
	- Copper scrap * *
	- Chromium scrap * *
B1050	Mixed non-ferrous metal, heavy fraction scrap, containing metals other than specified in Part B1050 and not containing constituents mentioned in Schedule II in concentrations sufficient to exhibit Part C characteristics* *
B1100	Metal bearing wastes arising from melting, smelting and refining of metals:
	- Hard Zinc spelter * *

	- Zinc-containing drosses * *: ~ Galvanizing slab zinc top dross (>90% Zn) ~ Galvanizing slab zinc bottom dross (>92% Zn) ~ Zinc die casting dross (>85% Zn) ~ Hot dip galvanizers slab zinc dross (batch) (>92% Zn) ~ Zinc skimmings
	– Aluminium skimmings (or skims) excluding salt slag
(1)	**(2)**
B1110	Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse and not for recycling or final disposal
	- Used electrical and electronic assemblies imported for repair and to be re-exported back after repair within one year of import * * *
	- Used electrical and electronic assemblies imported for rental purpose and re-exported back within one year of import * * *
	- Used electrical and electronic assemblies exported for repair and to be re-import after repair
	- Used electrical and electronic assemblies imported for testing, research and development, project work purposes and to be re-exported back within a period of three years from the date of import * * *
	- Spares imported for warranty replacements provided equal number of defective or non-functional parts are exported back within one year of the import * * *
	- Used electrical and electronic assemblies imported by Ministry of Defence, Department of Space and Department of Atomic Energy * * *
	- Used electrical and electronic assemblies (not in bulk; quantity less than or equal to three) imported by the individuals for their personal uses
	- Used Laptop, Personal Computers, Mobile, Tablet up to 01 number each imported by organisations in a year
	- Used electrical and electronic assemblies owned by individuals and imported on transfer of residence
	- Used multifunction print and copying machines (MFDs)* * * *
	- Used electrical and electronic assemblies imported by airlines for aircraft maintenance and remaining either on board or under the custodianship of the respective airlines warehouses located on the airside of the custom bonded areas.

B3	**Wastes containing principally organic constituents, which may contain metals and inorganic materials**
B3020	Paper, paperboard and paper product wastes * * The following materials, provided they are not mixed with hazardous wastes: Waste and scrap of paper or paperboard of: - unbleached paper or paperboard or of corrugated paper or paperboard - other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass - paper or paperboard made mainly of mechanical pulp (for example newspapers, journals and similar printed matter) - other, including but not limited to (1) laminated paperboard (2) unsorted scrap
B3140	Aircraft Tyres exported to Original Equipment Manufacturers for re-treading and re-imported after re-treading by airlines for aircraft maintenance and remaining either on board or under the custodianship of the respective airlines warehouses located on the airside of the custom bonded areas

Note:

* This list is based on Annexure IX of the Basel Convention on Transboundary Movement of Hazardous Wastes and comprises of wastes not characterized as hazardous under Article-I of the Basel Convention.

* * Import permitted in the country to the actual user or to the trader on behalf of the actual users authorised by SPCB on one time basis and subject to verification of documents specified in Schedule VIII of these rules by the Custom Authority.

* * * Import permitted in the country only to the actual users from Original Equipment Manufacturers (OEM) and subject to verification of documents specified in Schedule VIII of these rules by the Custom Authority.

* * * * Import permitted in the country to the actual users or trader on behalf of the actual user in accordance with the documents required and verified by the Custom Authority as specified under Schedule VIII of these rules. The policy for free trade for multifunction print and copying machine to be reviewed once the MFDs are domestically manufactured.

All other wastes listed in Part D of Schedule III having no "Stars" are permitted without any documents from MoEF&CC subject to compliance of the conditions of the Customs Authority, if any.

SCHEDULE IV

[*See rules 6 (1) (ii) and 6 (2)*]

List of commonly recyclable hazardous wastes

S.No.	Wastes
(1)	(2)
1.	Brass Dross
2.	Copper Dross

3.	Copper Oxide mill scale
4.	Copper reverts, cake and residue
5.	Waste Copper and copper alloys in dispersible from
6.	Slags from copper processing for further processing or refining
7.	Insulated Copper Wire Scrap or copper with PVC sheathing including ISRI-code material namely "Druid"
8.	Jelly filled Copper cables
9.	Spent cleared metal catalyst containing copper
10.	Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt
11.	Zinc Dross-Hot dip Galvanizers SLAB
12.	Zinc Dross-Bottom Dross
13.	Zinc ash/Skimmings arising from galvanizing and die casting operations
14.	Zinc ash/Skimming/other zinc bearing wastes arising from smelting and refining
15.	Zinc ash and residues including zinc alloy residues in dispersible from
16.	Spent cleared metal catalyst containing zinc
17.	Used Lead acid battery including grid plates and other lead scrap/ashes/residues not covered under Batteries (Management and Handling) Rules, 2001. [Battery scrap, namely: Lead battery plates covered by ISRI, Code word "Rails" Battery lugs covered by ISRI, Code word "Rakes". Scrap drained/dry while intact, lead batteries covered by ISRI, Code word "rains".
18.	Components of waste electrical and electronic assembles comprising accumulators and other batteries included in Part A of Schedule III, mercury-switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule II constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of Schedule III.
19.	Paint and ink Sludge/residues
20.	Used oil and waste oil

SCHEDULE V

[See rules 3 (36) and 3 (39)]

PART A
Specifications of Used Oil Suitable for recycling

S.No.	Parameter	Maximum permissible Limits
(1)	(2)	(3)
1.	**Polychlorinated biphenyls (PCBs)**	**< 2ppm ***
2.	**Lead**	**100 ppm**
3.	**Arsenic**	**5 ppm**
4.	**Cadmium+Chromium+Nickel**	**500 ppm**
5.	**Polyaromatic hydrocarbons (PAH)**	**6%**

Part B
Specification of fuel derived from waste oil

S.No.	Parameter	Maximum permissible limits
(1)	(2)	(3)
1.	Sediment	0.25%
2.	Lead	100 ppm
3.	Arsenic	5 ppm
4.	Cadmium+Chromium+Nickel	500 ppm
5.	Polyaromatic hydrocarbons (PAH)	6%
6.	Total halogents	4000 ppm
7.	Polychlorinated biphenyls (PCBs)	<2 ppm *
8.	Sulfur	4.5%
9.	Water Content	1%

***The detection limit is 2 ppm by gas Liquid Chromatography (GLC) using Electron Capture detector (ECD)**

SCHEDULE VI

[See rules 12 (6), 12 (7) and 14(1)]

Hazardous and Other wastes prohibited for import

Basel No	Description of hazardous and other wastes
(1)	(2)
A1	Metal and Metal bearing wastes
A1010	Metal wastes and waste consisting of alloys of any of the following but excluding such wastes specifically listed in Part B and Part D of Schedule III
	- Arsenic
	- Beryllium
	- Mercury
	- Selenium
	- Thallium
A1020	Wastes having as constituents or contaminants, excluding metal wastes in massive form, any of the following:
	- Beryllium; beryllium compounds
	- Selenium; selenium compounds
A1030	Wastes having as constituents or contaminants any of the following:
	- Arsenic; arsenic compounds
	- Mercury; mercury compounds

	- Thallium; thallium compounds
A1040	Waste having hexavalent chromium compounds as constituents
A1140	Waste cupric chloride and copper cyanide catalysts in liquid form (note the related entry in Part A of Schedule III)
A1060	Wastes liquors from the pickling of metals
A1110	Spent electrolytic solutions from copper electrorefining and electrowinning operations
A1130	Spent etching solutions containing dissolved copper
A1180	Waste electrical and electronic assembles or scrap (does not include scrap assemblies from electric power generation) containing components such as accumulators and other batteries included in Part A of Schedule III, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Schedule II constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in Part C of Schedule III (note the related entry in Part B B1110)
A1190	Waste metal cables coated or insulated with plastics containing or contaminated with coal tar, PCB, lead, cadmium, other organohalogen compounds or other constituents as mentioned in Schedule II to the extent that they exhibit hazard characteristics indicated in Part C of Schedule III
A2	**Wastes containing principally inorganic constituents, which may contain metals and organic materials**
A2020	Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes specified in Part B
A2040	Waste gypsum arising from chemical industry processes, if it contains any of the constituents mentioned in Schedule 2 to the extent that they exhibit hazard characteristics indicated in Part C of Schedule III (note the related entry in Part B B2080)
A2050	Waste asbestos (dusts and fibres)
A2060	Coal-fired power plant fly-ash containing Schedule II constituents in concentrations sufficient to exhibit Part C characteristics
A3	**Wastes containing principally organic constituents, which may contain metals and inorganic materials**
A3030	Wastes that contain, consist of or are contaminated with leaded anti-knock compounds sludges.
A3040	Waste thermal (heat transfer) fluids
A3060	Waste nitrocellulose
A3070	Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges
A3080	Waste ethers not including those specified in Part B
A3090	Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry in Part B B3100)
A3100	Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles, containing hexavalent chromium compound and biocides (note the related entry in Part B B3090)
A3110	Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances (note the related entry in Part B B3110)

A3140	Waste non-halogenated organic solvents but excluding such wastes specified in Part B
A3150	Waste halogenated organic solvents
A3160	Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations
A3170	Waste arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloro-ethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorhydrin)
A3180	Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB) or any other polybrominated analogues of these compounds
A3190	Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolytic treatment of organic materials
A3200	Bituminous material (asphalt waste) from road construction and maintenance, containing tar (note the related entry in Part B, B2130)
A4	**Wastes which may contain either inorganic or organic constituents**
A4020	Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices, and wastes generated in hospitals or other facilities during the investigation or treatment of patients, or research projects.
A4030	Waste from the production, formulation and use of biocide and phyto-pharmaceuticals, including waste pesticides and herbicides which are off-specification, out-dated (unused within the period recommended by the manufacturer), or unfit for their originally intended use,
A4050	Wastes that contain, consist of, or are contaminated with any of the following: - Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides. - Organic cyanides
A4060	Waste oils/water, hydrocarbons/water mixtures, emulsions
A4080	Wastes of an explosive nature (but excluding such wastes specified in Part B)
A4090	Waste acidic or basic solutions, other than those specified at B2120 of this Schedule
A4110	Wastes that contain, consist of or are contaminated with any of the following: - Any congenor of polychlorinated dibenzo-furan. - Any congenor of polychlorinated dibenzo-P-dioxin.
A4150	Waste chemical substances arising from research and development or teaching activities which are not identified and /or are new and whose effects on human health and /or the environment are not known
B1	**Metal and Metal bearing wastes**
B 1110	Used critical care medical equipment for re-use
B1115	Waste metal cables coated or insulated with plastics, not included in A1190 of this schedule, excluding those destined for operations which do not lead to resource recovery, recycling, reclamation, direct re-use or alternative uses or any other disposal operations involving, at any stage, uncontrolled thermal processes, such as open-burning.

B1250	Waste end-of-life motor vehicles, containing neither liquids nor other hazardous components
B2	**Wastes containing principally inorganic constituents, which may contain metals and organic materials**
B2050	Coal-fired power plant fly-ash, note the related entry at A2060 of this Schedule
B2110	Bauxite residue (red mud) (pH moderated to less than 11.5)
B2120	Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry at A4090 of this schedule)
B3	**Wastes containing principally organic constituents, which may contain metals and inorganic materials**
B3010	Solid plastic waste The following plastic or mixed plastic waste, prepared to a specification: - Scrap plastic of non-halogenated polymers and co-polymers, including but not limited to the following: Ethylene, Styrene, Polypropylene, polyethylene terephthalate, Acrylonitrile, Butadiene, Polyacetals, Polyamides, polybutylene tere-phthalate, Polycarbonates, Polyethers, polyphenylene sulphides, acrylic polymers, alkanes C10-C13 (plasticiser), polyurethane (not containing CFC's), Polysiloxanes, polymethyl methacrylate, polyvinyl alcohol, polyvinyl butyral, Polyvinyl acetate - Cured waste resins or condensation products including the following: urea formaldehyde resins, phenol formaldehyde resins, melamine formaldehyde resins, epoxy resins, alkyd resins, polyamides - The following fluorinated polymer wastes (excluding post-consumer wastes): perfluoroethylene/ propylene, perfluoro alkoxy alkane, tetrafluoroethylene/per fluoro vinyl ether (PFA), tetrafluoroethylene/per fluoro methylvinyl ether (MFA), polyvinylfluoride , polyvinylidenefluoride
B3026	The following waste from the pre-treatment of composite packaging for liquids, not containing constituents mentioned in Schedule II in concentrations sufficient to exhibit Part C characteristics: - Non-separable plastic fraction - Non-separable plastic-aluminium fraction -
B3065	Waste edible fats and oils of animal or vegetable origin (e.g. frying oil)
B3140	Waste pneumatic tyres for direct reuse
Y 46	Wastes collected from household/municipal waste
Y 47	Residues arising from the incineration of household wastes

SCHEDULE VII

[*See rules 13 (6) and 21*]

List of authorities and corresponding duties

S. No.	Authority	Corresponding Duties
(1)	(2)	(3)
1.	Ministry of Environment, Forests and Climate Change under the Environment (Protection)Act, 1986	(i) Identification of hazardous and other wastes (ii) Permission to exporters of hazardous and other wastes (iii) Permission to importer of hazardous and other wastes (iv) Permission for transit of hazardous and other wastes through India. (v) Promote environmentally sound management of hazardous and other waste. (vi) Sponsoring of training and awareness programme on Hazardous and Other Waste Management related activities.
2.	Central Pollution Control Board constituted under the Water (Prevention and Control of Pollution) Act, 1974	(i) Co-ordination of activities of State Pollution Control Boards (ii) Conduct training courses for authorities dealing with management of hazardous and other wastes (iii) Recommend standards and specifications for treatment and disposal of wastes and leachates, recommend procedures for characterisation of hazardous wastes.
		(iv) Inspection of facilities handling hazardous waste as and when necessary. (v) Sector specific documentation to identify waste for inclusion in these rules. (vi) Prepare and update guidelines to prevent or minimise the generation and handling of hazardous and other wastes. vii) Prepare and update guidelines/ Standard Operating Procedures (SoPs) for recycling, utilization, pre-processing, co-processing of hazardous and other wastes. (viii) To prepare annual review report on management of hazardous waste. (ix) Any other function assigned by the Ministry of Environment, Forest and

		Climate Change, from time to time.
3.	State Government/Union Territory Government/Administration	(i) Identification of site (s) for common Hazardous and Other Waste Treatment Storage and Disposal Facility (TSDF) (ii) Asses Environment Impact Assessment (EIA) reports and convey the decision of approval of site or otherwise Acquire the site or inform operator of facility or occupier or association of occupiers to acquire the site (iii) Notification of sites. (iv) Publish periodically an inventory of all potential or existing disposal sites in the State or Union Territory
4.	State Pollution Control Boards or Pollution Control Committees constituted under the Water (Prevention and Control of Pollution) Act, 1974	(i) Inventorisation of hazardous and other wastes (ii) Grant and renewal of authorisation (iii) Monitoring of compliance of various provisions and conditions of permission including conditions of permission for issued by Ministry of Environment, Forest and Climate Change for exports and imports (iv) Examining the applications for imports submitted by the importers and forwarding the same to Ministry of Environment, Forest and Climate Change (v) Implementation of programmes to prevent or reduce or minimise the generation of hazardous and other wastes. (vi) Action against violations of these rules. vii) Any other function under these Rules assigned by Ministry of Environment, Forest and Climate Change from time to time.
5.	Directorate General of Foreign Trade constituted under the Foreign Trade (Development and Regulation) Act, 1992	(i) Grant of licence for import of hazardous and other wastes (ii) Refusal of licence for hazardous and other wastes prohibited for imports and export
6.	Port authority under Indian Ports Act, 1908 (15 of 1908) and Customs Authority under the Customs Act, 1962 (52 of 1962)	(i) Verify the documents (ii) Inform the Ministry of Environment, Forests and Climate Change of any illegal traffic (iii) Analyse wastes permitted for imports and exports, wherever required. (iv) Train officials on the provisions of

		these rules and in the analysis of hazardous and other wastes (v) Take action against exporter or importer for violations under the Indian Ports Act, 1908 or Customs Act, 1962

SCHEDULE VIII

[*See rules 13(2) and 13 (4)*]

List of documents for verification by Customs for import of other wastes specified in Part D of Schedule III

S. No.	**Basel No.**	**Description of other wastes**	**List of Documents**
(1)	**(2)**	**(3)**	**(4)**
1	B1010	Metal and metal-alloy wastes in metallic, non-dispersible form: - Precious metals (gold, silver, platinum) - Iron and steel scrap - Nickel scrap - Aluminium scrap - Zinc scrap - Tin scrap - Tungsten scrap - Molybdenum scrap - Tantalum scrap - Cobalt scrap - Bismuth scrap - Titanium scrap - Zirconium scrap - Manganese scrap - Germanium scrap - Vanadium scrap - Hafnium scrap - Indium scrap - Niobium scrap - Rhenium scrap - Gallium scrap - Magnesium scrap - Copper scrap - Chromium scrap	(a) Duly filled up Form 6 - Movement document; (b) The import license from Directorate General of Foreign Trade, wherever applicable; (a) Pre-shipment inspection certificate issued by the inspection agency of the exporting country or the inspection and certification agency approved by Directorate General of Foreign Trade; (c) The valid consents to operate under the Air and Water Acts and the authorisation under these rules, for actual users. For traders, only valid one time authorisation from concerned SPCB is required; (d) The chemical analysis report of the waste being imported; (e) an acknowledged copy of the annual return filed with concerned State Pollution Control Board for import in the last financial year.
2	B1050	Mixed non-ferrous metal, heavy fraction scrap, containing metals other than specified in Part B1050 and not containing constituents mentioned in Schedule II in concentrations sufficient to exhibit Part C characteristics* *	(a) Duly filled up Form 6 - Movement document; (b) The import license from Directorate General of Foreign Trade, wherever applicable; (b) Pre-shipment inspection certificate issued by the inspection agency of the exporting country or the inspection and certification

			agency approved by Directorate General of Foreign Trade; (c) The valid consents to operate under the Air and Water Acts and the authorisation under these rules, for actual users. For traders, only valid authorisation from concerned SPCB is required; (d) The chemical analysis report of the waste being imported; (e) An acknowledged copy of the annual return filed with concerned SPCB for import in the last financial year.
3	B1100	Metal bearing wastes arising from melting, smelting and refining of metals: - Hard Zinc spelter - Zinc-containing drosses: ~ Galvanizing slab zinc top dross (>90% Zn) ~ Galvanizing slab zinc bottom dross (>92% Zn) ~Zinc die casting dross (>85% Zn) ~ Hot dip galvanizers slab zinc dross (batch) (>92% Zn) ~ Zinc skimmings – Aluminium skimmings (or skims) excluding salt slag	(c) Duly filled up Form 6 - Movement document; (d) The import license from Directorate General of Foreign Trade, wherever applicable; (e) Pre-shipment inspection certificate issued by the inspection agency of the exporting country or the inspection and certification agency approved by Directorate General of Foreign Trade; (f) The valid consents to operate under the Air and Water Acts and the authorisation under these rules, for actual users. For traders, only valid authorisation from concerned SPCB is required; (g) The chemical analysis report of the waste being imported; (h) An acknowledged copy of the annual return filed with concerned SPCB for import in the last financial year.
4	B1110	Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse and not for recycling or final disposal	
(a)		Used electrical and electronic assemblies imported for repair and to be re-exported after repair within one year of import	(a) Duly filled up Form 6 - Movement document; (b) Undertaking for re-export; (c) Details of previous import, if there has been any and confirmation regarding their re-export; (d) An acknowledged copy of the annual return filed with

			concerned SPCB for import in the last financial year (e) Certificate from exporting company for accepting the repaired and unrepairable electrical and electronic assemblies and the spares or part or component or consumables being re-exported.
(b)		Used electrical and electronic assemblies imported for rental purpose and re-exported back within one year of import	(a) Duly filled up Form 6 - Movement document; (b) Undertaking for re-export; (c) Details of previous import, if there has been any and confirmation regarding their re-export; (d) An acknowledged copy of the annual return filed with concerned SPCB for import in the last financial year
(c)		Used electrical and electronic assemblies exported for repair and to be re-imported after repair	(a) Duly filled up Form 6 - Movement document; (b) Proof of export of the defective electrical and electronic assemblies i.e. shipping or airway document authenticated by Customs
(d)		Used electrical and electronic assemblies imported for testing, research and development, project work purposes and to be re-exported back within a period of three years from the date of import	(a) Duly filled up Form 6 - Movement document; (b) Undertaking for re-export; (c) Details of previous import, if there has been any and confirmation regarding their re-export; (d) Chartered Engineer Certificate or certificate from accredited agency of exporting country indicating the functionality, manufacturing date, residual life and serial number; (e) an acknowledged copy of the annual return filed with concerned SPCB for import in the last financial year; (f) Certificate from exporting company for accepting the second hand functional or non-functional electrical and electronic assemblies and/or the spares or part or component or consumables being re-exported at the end of three

			years.
(e)		Spares imported for warranty replacements provided equal number of defective / non-functional parts are exported back within one year of the import.	(a) Duly filled up Form 6 - Movement document; (b) if refurbished components being imported as replacement to defective component then undertaking for export of equivalent numbers of defective components; (c) Details of previous import, if there has been any and confirmation regarding their re-export; (d) Certificate from exporting company for accepting the re-export of defective or non-functional spares or part or component or consumables being re-exported; (e) Documents on the declared policy regarding the use of second hand or refurbished spare parts for repair of electrical and electronic assemblies during warranty period.
(f)		Used electrical and electronic assemblies imported by Ministry of Defence, Department of Space and Department of Atomic Energy.	---
(g)		Used electrical and electronic assemblies (not in bulk; quantity less than or equal to three) imported by the individuals for their personal uses.	---
(h)		Used Laptop, Personal Computers, Mobile, Tablet up to 03 number each imported by organisations in a year.	---
(i)		Used electrical and electronic assemblies owned by individuals and imported on transfer of residence.	As per existing guidelines of Custom Authority
(j)		Used electrical and electronic assemblies, spares, imported	----

		by airlines for aircraft maintenance and remaining either on board or under the custodianship of the respective airlines warehouses located on the airside of the custom bonded areas.	
(j)		Used multifunction print and copying machines (MFDs)*	(a) The country of Origin Certificate along with bill of lading and packaging; (b) The certificate issued by the inspection agency as certified by the exporting country or the inspection and certification agency approved by Directorate General Foreign Trade (DGFT) for functionality, having residual life of not less than five years and serial number; (c) Extended Producer Responsibility-Authorisation under e-waste (Management and Handling) Rules, 2011 as amended from time to time as Producer; (d) The MFDs shall be for printing A 3 size and above; (e) An acknowledged copy of the annual return filed with concerned SPCB for import in the last financial year.
5	B3020	Paper, paperboard and paper product wastes The following materials, provided they are not mixed with hazardous wastes: Waste and scrap of paper or paperboard of: - unbleached paper or paperboard or of corrugated paper or paperboard - other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass - paper or paperboard made mainly of mechanical pulp (for example newspapers, journals and similar printed matter)	(a) Duly filled up Form 6 – Movement document; (b) The import license from Directorate General of Foreign Trade, wherever applicable; (i) Pre-shipment inspection certificate issued by the inspection agency of the exporting country or the inspection and certification agency approved by Directorate General of Foreign Trade; (c) The valid consents to operate under the Air and Water Acts and the authorisation under these rules, for actual users. For traders, only valid authorisation from concerned SPCB is required; (d) The chemical analysis report of the waste being imported; (e) an acknowledged copy of the

		- other, including but not limited to (1) laminated paperboard (2) unsorted scrap	annual return filed with concerned State Pollution Control Board for import in the last financial year.
6.	B3140	Aircraft Tyres exported to Original Equipment Manufacturers for re-treading and re-imported after re-treading by airlines for aircraft maintenance and remaining either on board or under the custodianship of the respective airlines warehouses located on the airside of the custom bonded areas	As per existing guidelines of Custom Authority

Note: * The policy for free trade for multifunction print and copying machine to be reviewed once the MFDs are domestically manufactured.

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)

Salient Features

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 SOLID WASTES MANAGEMENT RULES, 2016

MoEF, GoI Notification **S.O. 1357(E).**) Dated 8.4.2016

Salient Features

Rule 2	**Application.-** These rules shall apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Registrar General and Census Commissioner of India, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, Ports and harbours, defence establishments, special economic zones, State and Central government organisations, places of pilgrims, religious and historical importance as may be notified by respective State government from time to time and to every domestic, institutional, commercial and any other non residential solid waste generator situated in the areas except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste, that are covered under separate rules framed under the Environment (Protection) Act, 1986
Rule 3	**Definitions.-** **(30) " local body"** for the purpose of these rules means and includes the municipal corporation, nagar nigam, municipal council, nagarpalika, nagar Palikaparishad, municipal board, nagar panchayat and town panchayat, census towns, notified areas and notified industrial townships with whatever name they are called in different States and union territories in India (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; **(44)** "**segregation**" means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non biodegradable wastes including recyclable waste, non-recyclable combustible waste, sanitary waste and non recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes
Rule 4	Duties of waste generators
Rule 5	Duties of Ministry of Environment, Forest and Climate Change
Rule 6	Duties of Ministry of Urban Development
Rule 7	Duties of Department of Fertilisers, Ministry of Chemicals and Fertilisers
Rule 8	Duties of Ministry of Agriculture, Government of India
Rule 9	Duties of the Ministry of Power
Rule 10	Duties of Ministry of New and Renewable Energy Sources
Rule 11	Duties of the Secretary–in-charge, Urban Development in the States and Union territories
Rule 12	Duties of District Magistrate or District Collector or Deputy Commissioner.- The District Magistrate or District Collector or as the case may be , the Deputy Commissioner shall, -

	facilitate identification and allocation of suitable land as per clause (f) of rules 11 for setting up solid waste processing and disposal facilities to local authorities in his district in close coordination with the Secretary-in-charge of State Urban Development Department within one year from the date of notification of these rules; review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with the Commissioner or Director of Municipal Administration or Director of local bodies and secretary-in-charge of the State Urban Development
Rule 13	Duties of the Secretary–in-charge of Village Panchayats or Rural Development Department in the State and Union territory.- (1) The Secretary–in-charge of Village Panchayats or Rural Development Department in the State and Union territory shall have the same duties as the Secretary–in-charge, Urban Development in the States and Union territories, for the areas which are covered under these rules and are under their jurisdictions
Rule 14	Duties of Central Pollution Control Board
Rule 15	Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations
Rule 16	Duties of State Pollution Control Board or Pollution Control Committee
Rule 17	Duty of manufacturers or brand owners of disposable products and sanitary napkins and diapers
Rule 18	Duties of the industrial units located within one hundred km from the refused derived fuel and waste to energy plants based on solid waste
Rule 19	Criteria for Duties regarding setting-up solid waste processing and treatment facility
Rule 20	Criteria and actions to be taken for solid waste management in hilly areas
Rule 21	Criteria for waste to energy process
Rule 22	Time frame for implementation
Rule 23	State Level Advisory Body
Rule 24	Annual Reports
Rule 25	Accident Reporting
Schedule I	Specifications for Sanitary Landfills
Schedule II	Standards of processing and treatment of solid waste
Form -I	Application for obtaining authorisation under solid waste management rules for processing/recycling/treatment and disposal of solid waste
Form - II	Format for issue of authorisation
Form -III	Format of annual report to be submitted by the operator of facility to the local body
Form - IV	Format for annual report on solid waste management to be submitted by the local body
Form - V	Format of annual report to be submitted by the state pollution control board or pollution control committee committees to the central pollution

	control board
Form - VI	Accident Reporting

5.15 THE PLASTIC WASTE MANAGEMENT RULES, 2016

MoEF Notification **G.S.R 320(E)** Dated 18.3.2016

Salient Features

Rule 3	**Definitions**.- In these rules, unless the context otherwise requires.- (a) "Act" means the Environment (Protection) Act, 1986 (29 of 1986); (b) "brand owner" means a person or company who sells any commodity under a registered brand label. (c) "carry bags" mean bags made from plastic material or compostable plastic material, used for the purpose of carrying or dispensing commodities which have a self carrying feature but do not include bags that constitute or form an integral part of the packaging in which goods are sealed prior to use. (d) "commodity" means tangible item that may be bought or sold and includes all marketable goods or wares; (e) "compostable plastics" mean plastic that undergoes degradation by biological processes during composting to yield CO2, water, inorganic compounds and biomass at a rate consistent with other known compostable materials, excluding conventional petro-based plastics, and does not leave visible, distinguishable or toxic residue; (f) "consent" means the consent to establish and operate from the concerned State Pollution Control Board or Pollution Control Committee granted under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981); (g) "disintegration" means the physical breakdown of a material into very small fragments; (h) "extended producer's responsibility " means the responsibility of a producer for the environmentally sound management of the product until the end of its life; (i) "food-stuffs" mean ready to eat food products, fast food, processed or cooked food in liquid, powder, solid or semi-solid form (j) "facility" means the premises used for collection, Storage, recycling, processing and disposal of plastic waste; (k) "importer" means a person who imports or intends to import and holds an Importer - Exporter Code number, unless otherwise specifically exempted. (l) "institutional waste generator" means and includes occupier of the institutional buildings such as building occupied by Central Government Departments, State Government Departments, public or private sector companies, hospitals, schools, colleges, universities or other places of education, organisation, academy, hotels, restaurants, malls and shopping complexes; (m) "manufacturer" means and include a person or unit or agency engaged in production of plastic raw material to be used as raw

	material by the producer. (n) "multilayered packaging" means any material used or to be used for packaging and having at least one layer of plastic as the main ingredients in combination with one or more layers of materials such aspaper, paper board, polymeric materials, metalised layers or aluminium foil, either in the form of a laminate or co-extruded structure; (o) "plastic" means material which contains as an essential ingredient a high polymer such as polyethylene terephthalate, high density polyethylene, Vinyl, low density polyethylene, polypropylene, polystyrene resins, multi-materials like acrylonitrile butadiene styrene, polyphenylene oxide, polycarbonate, Polybutylene terephthalate; (p) "plastic sheet" means Plastic sheet is the sheet made of plastic; (q) "plastic waste"means any plastic discardedafter use or after their intended use is over; (r) "prescribed authority" means the authorities specified in rule 12; (s) "producer" means persons engaged in manufacture or import of carry bags or multilayered packaging or plastic sheets or like, and includes industries or individuals using plastic sheets or like or covers made of plastic sheets or multilayered packaging for packaging or wrapping the commodity; (i) "recycling" means the process of transforming segregated plastic waste into a new product or raw material for producing new products; (t) "registration" means registration with the State Pollution Control Board or Pollution Control Committee concerned, as the case may be (u) "street vendor" shall have the same meaning as assigned to it in clause (l) of sub-section (1) of Section 2 of the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 (7 of 2014); (v) "local body" means urban local body with different nomenclature such as municipal corporation, municipality, nagarpalika, nagarnigam, nagarpanchayat, municipal council including notified area committee (NAC) and not limited to or any other local body constituted under the relevant statutes such as gram panchayat, where the management of plastic waste is entrusted to such agency; (w) "virgin plastic" means plastic material which has not been subjected to use earlier and has also not been blended with scrap or waste; (x) "waste generator" means and includes every person or group of persons or institution, residential and commercial establishments including Indian Railways, Airport, Port and Harbour and Defense establishments which generate plastic waste; (y) "waste management" means the collection, storage, transportation reduction, re-use, recovery, recycling, composting

	or disposal of plastic waste in an environmentally safe manner; (z) "waste pickers" mean individuals or agencies, groups of individuals voluntarily engaged or authorised for picking of recyclable plastic waste.
Rule 4	**Conditions.-** (1) The manufacture, importer stocking, distribution, sale and use of carry bags, plastic sheets or like, or cover made of plastic sheet and multilayered packaging, shall be subject to the following conditions, namely:- a) carry bags and plastic packaging shall either be in natural shade which is without any added pigments or made using only those pigments and colourants which are in conformity with Indian Standard : IS 9833:1981 titled as "List of pigments and colourants for use in plastics in contact with foodstuffs, pharmaceuticals and drinking water", as amended from time to time; b) Carry bags made of recycled plastic or products made of recycled plastic shall not be used for storing, carrying, dispensing or packaging ready to eat or drink food stuff'; c) carry bag made of virgin or recycled plastic, shall not be less than fifty microns in thickness; d) plastic sheet or like, which is not an integral part of multilayered packaging and cover made of plastic sheet used for packaging, wrapping the commodity shall not be less than fifty microns in thickness except where the thickness of such plastic sheets impair the functionality of the product e) the manufacturer shall not sell or provide or arrange plastic to be used as raw material to a producer, not having valid registration from the concerned State Pollution Control Boards or Pollution Control Committee; f) sachets using plastic material shall not be used for storing, packing or selling gutkha, tobacco and pan masala; g) recycling of plastic waste shall conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time; h) The provision of thickness shall not be applicable to carry bags made up of compostable plastic. Carry bags made from compostable plastics shall conform to the Indian Standard: IS 17088:2008 titled as Specifications for Compostable Plastics, as amended from time to time. The manufacturers or seller of compostable plastic carry bags shall obtain a certificate from the Central Pollution Control Board before marketing or selling; and i) plastic material, in any form including Vinyl Acetate - Maleic Acid - Vinyl Chloride Copolymer, shall not be used in any package for packaging gutkha, pan masala and tobacco in all forms.
Rule 5	**Plastic Waste Management.-** (1) The plastic waste management by the urban local bodies in their respective jurisdiction shall be as under:- (a) plastic waste, which can be recycled, shall be channelized to registered plastic waste recycler and recycling of plastic shall

	conform to the Indian Standard: IS 14534:1998 titled as Guidelines for Recycling of Plastics, as amended from time to time. (b) local bodies shall encourage the use of plastic waste (preferably the plastic waste which cannot be further recycled) for road construction as per Indian Road Congress guidelines or energy recovery or waste to oil etc. The standards and pollution control norms specified by the prescribed authority for these technologies shall be complied with. (c) Thermo set plastic waste shall be processed and disposed off as per the guidelines issued from time to time by the Central Pollution Control Board. (d) The inert from recycling or processing facilities of plastic waste shall be disposed of in compliance with the Solid Waste Management Rules, 2000 or as amended from time to time.
Rule 6	**Responsibility of local body.-** (1) Every local body shall be responsible for development and setting up of infrastructure for segregation, collection, storage, transportation, processing and disposal of the plastic waste either on its own or by engaging agencies or producers. (2) The local body shall be responsible for setting up, operationalisation and co-ordination of the waste management system and for performing the associated functions, namely:- (a) Ensuring segregation, collection, storage, transportation, processing and disposal of plastic waste; (b) ensuring that no damage is caused to the environment during this process; (c) ensuring channelization of recyclable plastic waste fraction to recyclers; (d) ensuring processing and disposal on non-recyclable fraction of plastic waste in accordance with the guidelines issued by the Central Pollution Control Board; (e) creating awareness among all stakeholders about their responsibilities; (f) engaging civil societies or groups working with waste pickers; and (g) ensuring that open burning of plastic waste does not take place. (3) The local body for setting up of system for plastic waste management shall seek assistance of producers and such system shall be set up within one year from the date of final publication of these rules in the Official Gazaette of India. (4) The local body to frame bye-laws incorporating the provisions of these rules
Rule 7	**Responsibility of Gram Panchayat**.- (1) Every gram panchayat either on its own or by engaging an agency shall set up, operationalise and co-ordinate for waste management in the rural area under their control and for performing the associated functions, namely,- (a) ensuring segregation, collection, storage, transportation, plastic waste and channelization of recyclable plastic waste fraction to recyclers having valid registration; ensuring that no damage is caused to the environment during this process; (b) creating awareness among all stakeholders about their

	responsibilities; and (c) ensuring that open burning of plastic waste does not take place
Rule 8	**Responsibility of waste generator.-** (1) The waste generator shall.- (a) take steps to minimize generation of plastic waste and segregate plastic waste at source in accordance with the Solid Waste Management Rules, 2000 or as amended from time to time. (b) not litter the plastic waste and ensure segregated storage of waste at source and handover segregated waste to urban local body or gram panchayat or agencies appointed by them or registered waste pickers', registered recyclers or waste collection agencies (2) All institutional generators of plastic waste, shall segregate and store the waste generated by them in accordance with the Municipal Solid Waste (Management and Handling) Rules, 2000 notified vide S.O 908(E) dated the 25th September, 2000 under the Act or amendment from time to time and handover segregated wastes to authorized waste processing or disposal facilities or deposition centers either on its own or through the authorized waste collection agency. (3) All waste generators shall pay such user fee or charge as may be specified in the bye-laws of the local bodies for plastic waste management such as waste collection or operation of the facility thereof, etc.; Every person responsible for organising an event in open space, which involves service of food stuff in plastic or multilayered packaging shall segregate and manage the waste generated during such events in accordance with the Municipal Solid Waste (Management and Handling) Rules, 2000 notified vide S.O 908(E) dated the 25th September, 2000 under the Act or amendment from time to time
Rule 9	**Responsibility of producers**, **Importers and Brand Owners.-** (1) The producers, within a period of six months from the date of publication of these rules, shall work out modalities for waste collection system based on Extended Producers Responsibility and involving State Urban Development Departments, either individually or collectively, through their own distribution channel or through the local body concerned. (2) Primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of Producers, Importers and Brand Owners who introduce the products in the market. They need to establish a system for collecting back the plastic waste generated due to their products. This plan of collection to be submitted to the State Pollution Control Boards while applying for Consent to Establish or Operate or Renewal. The Brand Owners whose consent has been renewed before the notification of these rules shall submit such plan within one year from the date of notification of these rules and implement with two years thereafter. (3) manufacture and use of non- recyclable multilayered plastic if any should be phased out in Two years time. (4) The producer, within a period of three months from the date of final publication of these rules in the Official Gazette shall apply to the Pollution Control Board or the Pollution Control Committee, as the

	case may be, of the States or the Union Territories administration concerned, for grant of registration. (5) No producer shall on and after the expiry of a period of Six Months from the date of final publication of these rules in the Official Gazette manufacture or use any plastic or multilayered packaging for packaging of commodities without registration from the concerned State Pollution Control Board or the Pollution Control Committees (6) Every producer shall maintain a record of details of the person engaged in supply of plastic used as raw material to manufacture carry bags or plastic sheet or like or cover made of plastic sheet or multilayered packaging
Rule 10	**Protocols for compostable plastic materials**
Rule 11	**Marking or labelling**.-(1) Each plastic carry bag and multilayered packaging shall have the following information printed in English namely,- (a) name, registration number of the manufacturer and thickness in case of carry bag; (b) name and registration number of the manufacturer in case of multilayered packaging; and (c) name and certificate number [Rule 4(h)] in case of carry bags made from compostable plastic (2) Each recycled carry bag shall bear a label or a mark "recycled" as shown below and shall conform to the Indian Standard: IS 14534: 1998 titled as "Guidelines for Recycling of Plastics", as amended from time to time;
Rule 12	**Prescribed authority.-** (1) The State Pollution Control Board and Pollution Control Committee in respect of a Union territory shall be the authority for enforcement of the provisions of these rules relating to registration, manufacture of plastic products and multilayered packaging, processing and disposal of plastic wastes (2) The concerned Secretary-in-charge of Urban Development of the State or a Union Territory shall be the authority for enforcement of the provisions of these rules relating to waste management by waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multilayered packaging. (3) The concerned Gram Panchayat shall be the authority for enforcement of the provisions of these rules relating to waste management by the waste generator, use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multilayered packaging in the rural area of the State or a Union Territory. The authorities referred to in sub-rules (1) to (3) shall take the assistance of the District Magistrate or the Deputy Commissioner within the territorial limits of the jurisdiction of the concerned district in the enforcement of the provisions of these rules
Rule 13	**Registration of producer, recyclers and manufacturer,-** (1) No person shall manufacture carry bags or recycle plastic bags or multilayered packaging unless the person has obtained a registration from the State Pollution Control Board or the Pollution Control Committee of the Union Territory concerned, as the case may be, prior to the commencement of production; (2) Every producer shall, for the purpose of registration or for renewal of registration, make an application to the State Pollution

	Control Board or the Pollution Control Committee of the Union territory concerned, in Form I (3) Every person recycling or processing waste or proposing to recycle or process plastic waste shall make an application to the State Pollution Control Board or the Pollution Control Committee, for grant of registration or renewal of registration for the recycling unit, in Form II. (4) Every manufacturer engaged in manufacturer of plastic to be used as raw material by the producer shall make an application to the State Pollution Control Board or the Pollution Control Committee of the Union territory concerned, for the grant of registration or for the renewal of registration, in Form III. (5) The State Pollution Control Board or the Pollution Control Committee shall not issue or renew registration to plastic waste recycling or processing units unless the unit possesses a valid consent under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) along with a certificate of registration issued by the District Industries Centre or any other Government agency authorised in this regard (6) The State Pollution Control Board or the Pollution Control Committee shall not renew registration of producer unless the producer possesses and action plan endorsed by the Secretary in charge of Urban Development of the concerned State or Union Territory for setting of plastic waste management system. (7) On receipt of the application complete in all respects for the registration for recycling or processing of plastic waste under sub-rule (3), the State Pollution Control Board may, after such inquiry as it considers necessary and on being satisfied that the applicant possesses appropriate facilities, technical capabilities and equipment to handle plastic waste safely, may grant registration to the applicant on fulfilment of the conditions as may be laid down in terms of registration. (8) Every State Pollution Control Board or Pollution Control Committee shall take a decision on the grant of registration within ninety days of receipt of an application which is complete in all respects. (9) The registration granted under this rule shall initially be valid for a period of one year, unless revoked, suspended or cancelled and shall subsequently be granted for three years. (10) State Pollution Control Board or the Pollution Control Committees shall not revoke, suspend or cancel registration without providing the opportunity of a hearing to the producer or person engaged in recycling or processing of plastic wastes. (11) Every application for renewal of registration shall be made at least one hundred twenty days before the expiry of the validity of the registration certificate
Rule 14	**Responsibility of retailers and street vendors- (1)** Retailers or street vendors shall not sell or provide commodities to consumer in carry

	bags or plastic sheet or multilayered packaging, which are not manufactured and labelled or marked, as per prescribed under these rules. (2) Every retailers or street vendors selling or providing commodities in, plastic carry bags or multilayered packaging or plastic sheets or like or covers made of plastic sheets which are not manufactured or labelled or marked in accordance with these rules shall be liable to pay such fines as specified under the bye-laws of the local bodies
Rule 15	**Explicit pricing of carry bags.- (1)** The shopkeepers and street vendors willing to provide plastic carry bags for dispensing any commodity shall register with local body. The local body shall, within a period of six months from the date of final publication of these rules ion the Official Gazette of India notification of these rules, by notification or an order under their appropriate state statute or byelaws shall make provisions for such registration on payment of plastic waste management fee of minimum rupees forty eight thousand @ rupees four thousand per month. The concerned local body may prescribe higher plastic waste management fee, depending upon the sale capacity. The registered shop keepers shall display at prominent place that plastic carry bags are given on payment (2) Only the registered shopkeepers or street vendors shall be eligible to provide plastic carry bags for dispensing the commodities. (3) The local body shall utilize the amount paid by the customers for the carry bags exclusively for the sustainability of the waste management system within their jurisdictions
Rule 16	**State Level Monitoring Committee**
Rule 17	**Annual reports.-** (1) Every person engaged in recycling or processing of plastic waste shall prepare and submit an annual report in Form-IV to the local body concerned under intimation to the concerned State Pollution Control Board or Pollution Control Committee by the 30th April, of every year. (2) Every local body shall prepare and submit an annual report in Form –V to the concerned Secretary-in-charge of the Urban Development Department under intimation to the concerned State Pollution Control Board or Pollution Control Committee by the 30th June, every year
Form 1	APPLICATION FOR REGISTRATION FOR PRODUCERS or Brand Owners
Form 2	APPLICATION FORM FOR REGISTRATION OF UNITS ENGAGED IN PROCESSING OR RECYCLING OF PLASTIC WASTE
Form 3	APPLICATION FOR REGISTRATION FOR MANUFACTURERS of plastic raw materials
Form 4	Format of Annual Report by Operator of plastic waste processing or recycling Facility to the Local Body
Form 5	FORMAT FOR ANNUAL REPORT ON PLASTIC WASTE MANAGEMENT TO BE SUBMITTED BY THE LOCAL BODY

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 complaint 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) RULES, 2016

(MoEF Notification **G.S.R 338(E)** dated 23.3.2016)

Salient Features

Rule 2	**Application**. - These rules shall apply to every manufacturer, producer, consumer, bulk consumer, collection centres, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational but shall not apply to - (a) used lead acid batteries as covered under the Batteries (Management and Handling) Rules, 2001 made under the Act; (b) micro 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**.- (a) 'Act' means the Environment (Protection) Act, 1986 (29 of 1986); (b) 'authorisation' means permission for generation, handling, collection, reception, storage, transportation, refurbishing, dismantling, recycling, treatment and disposal of e-waste, granted to manufacturer, dismantler, refurbisher and recycler; (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 organisations, international agencies, partnership and public or private companies that are registered under the Factories Act, 1948 (63 of 1948) and the Companies Act, 2013 (18 of 2013) and health care facilities which have turnover of more than one crore or have more than twenty employees; (d) 'Central Pollution Control Board' means the Central Pollution Control Board constituted under sub-section (1) of section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974); (e) 'collection centre' means a centre or a collection point or both established by producer individually or as association jointly to collect e-waste for channelising the e-waste to recycler and play such role as indicated in the authorisation for Extended Producer Responsibility granted to the producer and having facilities as per the guidelines of Central Pollution Control Board, including the collection centre established by the dismantler or refurbisher or recycler which should be a part of their authorisation issued by the State Pollution Control Board where the facility exists; (f) 'component' means one of the parts of a sub-assembly or assembly of which a manufactured product is made up and into which it may be resolved and includes an accessory or attachment to another component; (g) 'consumables' means an item, which participates in or is

		required for a manufacturing process or for functioning of the electrical and electronic equipment and may or may not form part of end-product. Items, which are substantially or totally consumed during a manufacturing process, shall be deemed to be consumables;
	(h)	'consumer' means any person using electrical and electronic equipment excluding the bulk consumers;
	(i)	'channelisation' means to direct the path for movement of e-wastes from collection onwards to authorised dismantler or recycler. In case of fluorescent and other mercury containing lamps, where recyclers are not available, this means path for movement from collection centre to Treatment, Storage and Disposal Facility;
	(j)	'dealer' means any individual or firm that buys or receives electrical and electronic equipment as listed in Schedule I of these rules and their components or consumables or parts or spares from producers for sale;
	(k)	'deposit refund scheme' means a scheme whereby the producer charges an additional amount as a deposit at the time of sale of the electrical and electronic equipment and returns it to the consumer along with interest when the end-of-life electrical and electronic equipment is returned;
	(l)	'dismantler' means any person or organisation engaged in dismantling of used electrical and electronic equipment into their components and having facilities as per the guidelines of Central Pollution Control Board and having authorisation from concerned State Pollution Control Board;
	(m)	'disposal' means any operation which does not lead to recycling, recovery or reuse and includes physico-chemical or biological treatment, incineration and deposition in secured landfill;
	(n)	'end-of-life' of the product means the time when the product is intended to be discarded by the user;
	(o)	'environmentally sound management of e-waste' means taking all steps required to ensure that e-waste is managed in a manner which shall protect health and environment against any adverse effects, which may result from such e-waste;
	(p)	'electrical and electronic equipment' means equipment which are dependent on electric current or electro-magnetic field in order to become functional;
	(q)	'e-retailer' means an individual or company or business entity that uses an electronic network such as internet, telephone, to sell its goods;
	(r)	'e-waste' means electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes;
	(s)	'e-waste exchange' means an independent market instrument offering assistance or independent electronic systems offering services for sale and purchase of e-waste generated from end-of-life electrical and electronic equipment between agencies or organisations authorised under these rules;
	(t)	'Extended Producer Responsibility' means responsibility of any producer of electrical or electronic equipment, for channelisation of e-waste to ensure environmentally sound management of such waste. Extended Producer Responsibility

	may comprise of implementing take back system or setting up of collection centres or both and having agreed arrangements with authorised dismantler or recycler either individually or collectively through a Producer Responsibility Organisation recognised by producer or producers in their Extended Producer Responsibility - Authorisation; (u) 'Extended Producer Responsibility - Authorisation' means a permission given by Central Pollution Control Board to a producer, for managing Extended Producer Responsibility with implementation plans and targets outlined in such authorisation including detail of Producer Responsibility Organisation and e-waste exchange, if applicable; (v) 'Extended Producer Responsibility Plan' means a plan submitted by a producer to Central Pollution Control Board, at the time of applying for Extended Producer Responsibility - Authorisation in which a producer shall provide details of e-waste channelisation system for targeted collection including detail of Producer Responsibility Organisation and e-waste exchange, if applicable; (w) 'facility' means any location wherein the process incidental to the collection, reception, storage, segregation, refurbishing, dismantling, recycling, treatment and disposal of e-waste are carried out; (x) 'Form' means a form appended to these rules; (y) 'historical e-waste' means e-waste generated from electrical and electronic equipment as specified in Schedule I, which was available on the date from which these rules come into force; (z) 'manufacturer' means a person or an entity or a company as defined in the Companies Act, 2013 (18 of 2013) or a factory as defined in the Factories Act, 1948 (63 of 1948) or Small and Medium Enterprises as defined in Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006), which has facilities for manufacture of electrical and electronic equipment; (aa) 'orphaned products' means non-branded or assembled electrical and electronic equipment as specified in Schedule I or those produced by a company, which has closed its operations; (bb) 'part' means an element of a sub-assembly or assembly not normally useful by itself, and not amenable to further disassembly for maintenance purposes. A part may be a component, spare or an accessory; (cc) 'producer' means any person who, irrespective of the selling technique used such as dealer, retailer, e-retailer, etc.; (i) manufactures and offers to sell electrical and electronic equipment and their components or consumables or parts or spares under its own brand; or (ii) offers to sell under its own brand, assembled electrical and electronic equipment and their components or consumables or parts or spares produced by other manufacturers or suppliers; or (iii) offers to sell imported electrical and electronic equipment and their components or consumables or parts or spares; (dd) 'Producer Responsibility Organisation' means a professional organisation authorised or financed collectively or individually by producers, which can take the responsibility for collection

	and channelisation of e-waste generated from the 'end-of-life' of their products to ensure environmentally sound management of such e-waste; (ee) 'recycler' - means any person who is engaged in recycling and reprocessing of waste electrical and electronic equipment or assemblies or their components and having facilities as elaborated in the guidelines of Central Pollution Control Board; (ff) 'refurbishment' means repairing of used electrical and electronic equipment as listed in Schedule I for extending its working life for its originally intended use and selling the same in the market or returning to owner; (gg) 'refurbisher' for the purpose of these rules, means any company or undertaking registered under the Factories Act, 1948 or the Companies Act, 1956 or both or district industries centre engaged in refurbishment of used electrical and electronic equipment; (hh) 'Schedule' means the Schedule appended to these rules; (ii) "spares" means a part or a sub-assembly or assembly for substitution which is ready to replace an identical or similar part or sub-assembly or assembly including a component or an accessory; (jj) 'State Government in relation to an Union territory means, the Administrator thereof appointed under article 239 of the Constitution; (kk) 'State Pollution Control Board' means the concerned State Pollution Control Board or the Pollution Control Committee of the Union Territories constituted under sub-section (1) of section 4 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974); (ll) 'target' means the quantity of e-waste to be collected by the producer in fulfilment of Extended Producer Responsibility; (mm) 'transporter' means a person or company or entity engaged in the off-site transportation of e-waste by air, rail, road or water carrying a manifest system issued by the person or company or entity who has handed over the e-waste to the transporter, giving the origin, destination and quantity of the e-waste being transported;
Rule 4	**Responsibilities of the manufacturer**. – (1) collect e-waste generated during the manufacture of any electrical and electronic equipment and channelise it for recycling or disposal; (2) apply for an authorisation in Form 1 (a) in accordance with the procedure prescribed under sub-rule (2) of rule 13 from the concerned State Pollution Control Board, which shall give the authorisation in accordance with Form 1 (bb); (3) ensure that no damage is caused to the environment during storage and transportation of e-waste; (4) maintain records of the e-waste generated, handled and disposed in Form-2 and make such records available for scrutiny by the concerned State Pollution Control Board; (5) file annual returns in Form-3, to the concerned State Pollution

	Control Board on or before the 30th day of June following the financial year to which that return relates
Rule 5	Responsibilities of the producer
Rule 6	Responsibilities of collection centres
Rule 7	Responsibilities of dealers
Rule 8	Responsibilities of the refurbisher
Rule 9	Responsibilities of consumer or bulk consumer
Rule 10	Responsibilities of the dismantler
Rule 11	Responsibilities of the recycler
Rule 12	Responsibilities of State Government for environmentally sound management of E-waste
Rule 13	Procedure for Seeking and Grant of Authorisation (2) Extended Producer Responsibility - Authorisation of Producers (3) Authorisation of Manufacturer (4) Procedure for grant of authorisation to dismantler or recycler (5) Procedure for grant of authorisation to refurbisher
Rule 14	Power to suspend or cancel an authorisation
Rule 15	Procedure for storage of e-waste
Rule 16	Reduction in the use of hazardous substances in the manufacture of electrical and electronic equipment and their components or consumables or parts or spares
Rule 17	Duties of authorities
Rule 18	Annual Report.
Rule 19	Transportation of e-waste
Rule 20	Accident reporting
Rule 21	Liability of manufacturer, producer, importer, transporter, refurbisher, dismantler and recycler
Rule 22	Appeal
Schedule-I	Categories of electrical and electronic equipment including their components, consumables, parts and spares covered under the rules
Schedule -II	Applications, which are exempted from the requirements of sub-rule (1) of rule 16
Schedule-III	Targets for Extended Producer Responsibility - Authorisation
Schedule-IV	LIST OF AUTHORITIES AND CORREPONDING DUTIES
Form -1	Applicable to producers seeking Extended Producer Responsibility - Authorisation
Form -1(a)	APPLICATION FOR OBTAINING AUTHORISATION FOR GENERATION OR STORAGE OR TREATMENT OR DISPOSAL OF E-WASTE BY MANUFACTURER OR REFURBISHER
Form -1(aa)	FORMAT OF EXTENDED PRODUCER RESPONSIBILITY - AUTHORISATION
Form -1(bb)	FORMAT FOR GRANTING AUTHORISATION FOR GENERATION OR STORAGE OR TREATMENT OR REFURBISHING OR DISPOSAL OF E-WASTE BY MANUFACTURER OR REFURBISHER
Form -2	FORM FOR MAINTAINING RECORDS OF E-WASTE HANDLED OR

	GENERATED
Form -3	FORM FOR FILING ANNUAL RETURNS
Form - 4	APPLICATION FORM FOR AUTHORISATION OF FACILITIES POSSESSING ENVIRONMENTALLY SOUND MANAGEMENT PRACTICE FOR DISMANTLING OR RECYCLING OF E-WASTE
Form - 5	FORM FOR ANNUAL REPORT TO BE SUBMITTED BY THE STATE POLLUTION CONTROL BOARD TO THE CENTRAL POLLUTION CONTROL BOARD
Form - 6	E-WASTE MANIFEST
Form - 7	APPLICATION FOR FILING APPEAL AGAINST THE ORDER PASSED BY CENTRAL POLLUTION CONTROL BOARD/STATE POLLUTION CONTROL BOARD

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 practice, 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 worship, 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 project proponent shall apply for consent only through Online Consent Management & Monitoring System (OCMMS).** Application will not be received by offline. Web portal for online consent application is **tnocmms.nic.in** OCMMS is a web based generic application software package for automating the workflow associated with Consent Management and Monitoring which is one of the basic functions of the TNPCB. This system allows the industries for online submission of application for Consent to Establish, Consent to Operate, Renewal of Consents, uploading of documents, online payment of consent fee, online submission of clarification and for knowing the status of application. In order to help the project proponent on filing of application through OCMMS, TNPCB operates Care Centre in all the District Offices.

3. 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 applications which are in complete shape will be cleared and consent for establishment will be issued for a validity period of five years for non-EC cases and seven years for EC attracting cases.

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

8. As per EIA Notification 2006, 38 categories of industries have to obtain Environmental Clearance from Ministry of Environment, Forests & Climate Change, Government of India / State Environmental 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 from MOEF&CC/SEIAA and after satisfying the siting 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. District Environmental Engineer, TNPCB is the convener of the District Coastal Zone Management Committee.

Consent to Establish validity period shall be as follows:

Projects	Validity Period
All EIA Projects	7 Years (1 Fee)
All Non-EIA Projects	5 Years (1 Fee)

All the Consent to Establish order will be issued with validity date ending 31st March

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 application shall be submitted through **OCMMS.** 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. All the Consent to Operate orders will be issued with validity date ending 31st March

6.1.3 Time Limit for Processing Application by TNPCB

(Source: Proc.No.TNPCB/P&D/F.No. 3437/2015 dated 26.9.2016)

TNPCB prescribed time limit for processing of the applications received for issue of consent to establish, consent to operate, renewal of consent, consent for expansion activity, amendment, extension of consent, authorization under Bio-Medical Waste Rules, Hazardous Waste rules, Municipal Solid Waste Rules, E-Waste Rules, Plastic Waste Rules etc., as detailed below:

Sl.No.	Category / Classification	Time Limit Prescribed for processing in days
1	Red / Large	45
2	Red / Medium	45

Sl.No.	Category / Classification	Time Limit Prescribed for processing in days
3	Red / Small	30
4	Orange / Large	30
5	Orange / Medium	30
6	Orange / Small	30
7	Green / Large	30
8	Green / Medium	30
9	Green / Small	30
10	Industries attracting EIA / CRZ Notification	45
11	Hazardous Waste Authorization	45
12	Bio-Medical Waste Authorization	45
13	Municipal Solid Waste Authorization	45
14	E-Waste Authorization	45
15	Plastic Waste Registration	45

6.1.4 Inspection Procedure

(Source: Proc.No. TNPCB/Per./F.No.025714/2013 dated 19.6.2015)

TNPCB issued the following procedure for inspection

1. Notice of inspection to the responsible person/occupier of the premises shall be served before the actual inspection of the premises.
2. Then in the presence of the responsible person/occupier of the premises the inspecting officer shall visit the industry site and surroundings to collect all the information as required in the prescribed inspection report.
3. In case of Green site industry importance shall be given to the following details:
   a. Location and details of water bodies
   b. Location and details of habitations
   c. Location and details of other industries
   d. Location and details of roadways
4. In case of existing industries importance shall be given to the following details:
   a) All manufacturing process operations right from the raw materials receipt to product dispatch.
   b) Records and log books used for accounting the raw materials, by/intermediate products and products quantities.
   c) Sources, treatment and consumption locations of fresh water and related records and log books.
   d) The sources of generation of wastewater and air emission, their treatment/control and disposal activities and related records and log books.
   e) The sources of generation of Hazardous and Non – Hazardous Solid Waste, their storage, treatment and disposal activities and related records and log books.
   f) Log book of the readings of flow meters fixed at various locations in water and wastewater pipelines.
   g) Log book of the readings of energy meters used for the purpose of water drawl and usage, wastewater treatment and disposal, solid and hazardous waste management and air pollution control.
5. During the inspection of the industry the inspecting officer also collect samples of wastewater, hazardous waste and ground/surface water, depending upon the requirement. In case of legal sample, the procedure available in the Water

(P&CP) Act shall be followed.

6. Also the inspecting officer shall inform the non-compliance/violations orally and record them in the log book maintained by the industry.
7. After the inspection the inspecting officer shall prepare an inspection report in the prescribed format and submit it to the appropriate authorities along with the non-compliances observed if any and recommendations for taking further action.
8. Based on the inspection report the appropriate authority will issue consent/authorization or instructions/show cause notice for the non-compliances/violations observed if any, along with the corrective actions to be taken with time limit as the case may be, in writing, to the industry.

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.

Consent to Operate (Renewal) will also be issued with validity period for Red / Orange / Green category industries for 5 / 10 / 14 Years respectively on remittance of total consent fee for the entire period in advance Or else the validity period of consent to operate (Renewal) will be restricted accordingly to the number of fees remitted.

6.2.1 Validity Period for Renewal Consent

As per Board vide B.P. Ms No.5 dt.2.8.2016 all the Consent to Establish, Consent to Operate and renewal consent orders will be issued with validity date ending 31st March.

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, E-Waste Authorization / Registration of recyclers	M.S	M.S	M.S	M.S	M.S	M.S	M.S
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

Note: If the unit is on lease land or building or both, land and building component of GFA shall be 20 years lease value. (Source: Circular Memo No. TSI/16488/MISC/90, dt. 28.5.1991).

6.5 CATEGORIZATION OF INDUSTRIES (Source: B.P. Ms. No.6 dated 2.8.2016 and Proc. No. TNPCB/P&D/Revised Categorisation/2016 dt. 26.10.16)

Industries are classified either as Red, Orange, Green and White on the basis of their potential for causing pollution. Red – Highly Polluting, Orange – Medium Polluting, Green – Less Polluting , White – Non 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 code	Industry sector-Types
1	1001	Isolated storage of hazardous chemicals (as per schedule of Manufacturing, Storage of Hazardous Chemicals Rules,1989 as amended)
2	1002	Automobile Manufacturing plants (integrated facilities) having either one or combinations of polluting activities namely washing, metal surface finishing operations, pickling, plating, electroplating, phosphating, painting, heat treatment etc. Heavy Engineering and Ship building are merged in this Category.
3	1003	Industries engaged in recycling / reprocessing/ recovery/ reuse of Hazardous Waste under schedule iv of HW(M,H & TBM) rules, 2008 - Items namely - Spent cleared metal catalyst containing copper, Spent cleared metal catalyst containing zinc
4	1004	Manufacturing of lubricating oils, grease and petroleum based products
5	1005	DG Set of capacity ≥ 5 MVA
6	1006	Industrial carbon including electrodes and graphite blocks, activated carbon, carbon black
7	1007	Lead acid battery manufacturing (excluding assembling and

		charging of lead- acid battery in micro scale)
8	1008	Phosphate rock processing plant
9	1009	Power generation plant [except Wind and Solar renewable power plants of all capacities and Mini Hydel power plant of capacity <25MW]
10	1010	Industries engaged in recycling / reprocessing/ recovery/ reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) Rules, 2008 - Items namely - Spent catalyst containing nickel, cadmium, Zinc, copper, arsenic, vanadium and cobalt,
11	1011	Processes involving chlorinated hydrocarbons
12	1012	Sugar (excluding Khandasari)
13	1013	Fibre glass production and processing (excluding moulding) including Lead containing glass
14	1014	Fire crackers manufacturing and bulk storage facilities
15	1015	Industries engaged in recycling / reprocessing/ recovery/reuse of Hazardous Waste under schedule iv of HW (M, H& TBM) Rules, 2008 - Items namely - Dismantlers Recycling Plants - Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury-switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule
16	1016	Milk processes and dairy products (integrated project)
17	1017	Phosphorous and its compounds
18	1018	Pulp & Paper (waste paper based without bleaching process to manufacture Kraft paper)
19	1019	Coke making, liquefaction, coal tar distillation or fuel gas making
20	1020	Manufacturing of explosives, detonators, fuses including management and handling activities
21	1021	Manufacturing of paints varnishes, pigments and intermediate (excluding blending/mixing)
22	1022	Organic Chemicals manufacturing
23	1023	Airports and Commercial Air Strips having waste water generation 100 KLD and above
24	1024	Asbestos and asbestos based industries
25	1025	Basic chemicals and electro chemicals and its derivatives including manufacturing of acid
26	1026	Cement
27	1027	Chlorates, per-chlorates & peroxides
28	1028	Chlorine, fluorine, bromine, iodine and their compounds
29	1029	Dyes and Dye- Intermediates
30	1030	Health-care Establishment (as defined in BMW Rules) having incinerator irrespective of waste generation (or) having total waste water generation 100 KLD and above

31	1031	Hotels having overall wastewater generation @ 100 KLD and more (or) having rooms 100 and above
32	1032	Industries engaged in recycling / reprocessing/ recovery/ reuse of Hazardous Waste under schedule iv of HW(M, H & TBM) Rules, 2008 - Items namely - Lead acid battery plates and other lead scrap/ ashes/ residues not covered under Batteries (Management and Handling) Rules, 2001. [* Battery scrap, namely: Lead battery plates covered by ISRI, Code word "Rails" Battery lugs covered by ISRI, Code word "Rakes". Scrap drained/dry while intact, lead batteries covered by ISRI, Code word "rains".
33	1033	Industries engaged in recycling / reprocessing/ recovery/ reuse of Hazardous Waste under schedule iv of HW(M, H& TBM) Rules, 2008 - Items namely - Integrated Recycling Plants -Components of waste electrical and electronic assembles comprising accumulators and other batteries included on list A, mercury- switches, activated glass cullets from cathode-ray tubes and other activated glass and PCB-capacitors, or any other component contaminated with Schedule 2 constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they exhibit hazard characteristics indicated in part C of this Schedule
34	1034	Manufacturing of glue and gelatin
35	1035	Mining and ore beneficiation
36	1036	Nuclear power plant
37	1037	Pesticides (technical) (excluding formulation)
38	1038	Photographic film and its chemicals
39	1039	Railway locomotive work shop / Integrated road transport workshop / Authorized service centers having waste water generation 100 KLD and above
40	1040	Yarn / Textile processing involving any effluent/ emission generating processes including bleaching, dyeing, printing and colouring
41	1041	Chlor Alkali
42	1042	Ship Breaking Industries
43	1043	Oil and gas extraction including CBM (offshore & on-shore extraction through drilling wells)
44	1044	Industry or process involving metal surface treatment or process such as pickling/ electroplating/ paint stripping/ heat treatment using cyanide bath/ phosphating or finishing and anodizing / enamellings/ galvanizing
45	1045	Tanneries
46	1046	Ports and harbour, jetties and dredging operations
47	1047	Synthetic fibers including rayon, tyre cord, polyester filament yarn
48	1048	Thermal Power Plants
49	1049	Slaughter house (as per notification S.O.270(E)dated 26.03.2001)and meat processing industries, bone mill, processing of animal horn, hoofs and other body parts

50	1050	Aluminium Smelter
51	1051	Copper Smelter
52	1052	Fertilizer (basic) (excluding formulation)
53	1053	Iron & Steel (involving processing from ore/ integrated steel plants) and or Sponge Iron units
54	1054	Pulp & Paper (waste paper based units with bleaching process to manufacture writing & printing paper)
55	1055	Zinc Smelter
56	1056	Oil Refinery (mineral Oil or Petro Refineries)
57	1057	Petrochemicals Manufacturing (including processing of Emulsions of oil and water)
58	1058	Pharmaceuticals
59	1059	Pulp & Paper (Large-Agro + wood), Small Pulp & Paper (agro based-wheat straw/rice husk)
60	1060	Distillery (molasses / grain / yeast based)
61	1061	Synthetic detergents and soaps (excluding formulation) having waste water generation 100 KLD and above
62	1062	Automobile servicing, repairing and painting (excluding only fuel dispensing) having waste water generation 100 KLD and above
63	1063	Building and construction project more than 20,000 sq.m built up area and having waste water generation 100 KLD and above
64	1064	Ceramics and Refractories having coal/fuel consumption 12 MT/day and more
65	1065	Fermentation industry including manufacture of yeast, beer, distillation of alcohol (Extra Neutral Alcohol) having waste water generation 100 KLD and above
66	1066	Ferrous and Non- ferrous metal extraction involving different furnaces through melting, refining, re-processing, casting and alloy making - secondary production of Ferrous and Non- ferrous metals more than 1 MT/hr production (or) Lead extraction irrespective of capacity (or) metal extraction having Induction Furnace clubbed with AOD furnace
67	1067	Industry or processes involving foundry operations having capacity of 5 MT/hr and more as such units require using coal/coke at more than 500 Kg/hr
68	1068	Manufacturing of glass (Lead glass only)
69	1069	Non-alcoholic beverages (soft drink) & bottling of alcohol/ non-alcoholic products having waste water generation 100 KLD and above
70	1070	Vegetable oil manufacturing including solvent extraction and refinery / hydrogenated oils having waste water generation 100 KLD and above
71	1071	Parboiled Rice Mills having waste water generation 100 KLD and above (or) fuel consumption 12 MTD and above (or) both
72	1072	Common treatment and disposal facilities-TSDF
73	1073	Common treatment and disposal facilities-E-waste recycling

74	1074	Common treatment and disposal facilities-CBMWTF
75	1075	Effluent conveyance project
76	1076	Common treatment and disposal facilities-Solvent/Acid recovery plant
77	1077	MSW sanitary landfill site
78	1078	Common treatment and disposal facilities-CETP for Red category Industries
79	1079	Industrial Estates/ Parks/ Complexes/ areas/ Export processing zones/ SEZs/ Bio-tech parks/ Leather complex
80	1080	Pharmaceutical R & D activities (For sustained release/ extended release of drugs only and not for commercial purpose)
81	*1081*	Sewage Treatment Plant
82	*1082*	Reclamation/deploymerisation/pyrolysis of plastic/rubber to get oil, carbon black etc.
83	*1083*	Tyre, tube & rubber components
84	*1084*	Analytical & material testing lab
85	*1085*	Stone/Savudu Quarries
86	*1086*	Infrastructure development projects including educational institutions, community hall, kalyanamadapam, IT park, Theme park (having wastewater generation more than 100 KLD)
87	*1999*	Miscellaneous (Red)

ORANGE CATEGORY

Sl No	**Type code**	**Industry sector-Types**
1	2001	Dismantling of rolling stocks (wagons/ coaches)
2	2002	Bakery and confectionery units with production capacity > 1 TPD (With ovens / furnaces)
3	2003	Chanachur and ladoo from puffed and beaten rice(muri and shira) using husk fired oven
4	2004	Coated electrode manufacturing
5	2005	Compact disc computer floppy and cassette manufacturing / Reel manufacturing
6	2006	Flakes from rejected PET bottle
7	2007	Food and food processing including fruits and vegetable processing
8	2008	Jute processing without dyeing
9	2009	Manufacturing of silica gel
10	2010	Manufacturing of tooth powder, toothpaste, talcum powder and other cosmetic items
11	2011	Printing or etching of glass sheet using hydrofluoric acid
12	2012	Silk screen printing, sari printing by wooden blocks
13	2013	Synthetic detergents and soaps(excluding formulation) having waste water generation less than 100 KLD
14	2014	Thermometer manufacturing
15	2015	Cotton spinning and weaving (medium and large scale)

16	2016	Almirah, Grill Manufacturing (Dry Mechanical Process) with painting
17	2017	Aluminium & copper extraction from scrap using oil fired furnace (dry process only)
18	2018	Automobile servicing, repairing and painting (excluding only fuel dispensing) having waste water generation less than 100 KLD
19	2019	Ayurvedic and homeopathic medicine (with Boiler)
20	2020	Brickfields (excluding fly ash brick manufacturing using lime process)
21	2021	Building and construction project more than 20,000 sq.m built up area and having waste water generation less than 100 KLD
22	2022	Ceramics and Refractories having coal/fuel consumption less than 12 MT/day
23	2023	Coal washeries
24	2024	Dairy and dairy products (small scale)
25	2025	DG set of capacity >1MVA but < 5MVA
26	2026	Dry coal processing, mineral processing, industries involving ore sintering, pelletisating, grinding & pulverization
27	2027	Fermentation industry including manufacture of yeast, beer, distillation of alcohol (Extra Neutral Alcohol) having waste water generation less than 100 KLD
28	2028	Ferrous and Non- ferrous metal extraction involving different furnaces through melting, refining, re-processing, casting and alloy making- Secondary production of Ferrous and Non- ferrous metals (excluding lead) upto 1 MT/hr production
29	2029	Fertilizer (granulation / formulation / blending only)
30	2030	Fish feed, poultry feed and cattle feed
31	2031	Fish processing and packing (excluding chilling of fishes)
32	2032	Forging of ferrous and non- ferrous metals (using oil and gas fired furnaces)
33	2033	Formulation/ pelletization of camphor tablets, naphthalene balls from camphor/ naphthalene powders.
34	2034	Glass ceramics, earthen potteries and tile manufacturing using oil and gas fired kilns, coating on glasses using cerium fluorides and magnesium fluoride etc.
35	2035	Gravure printing, digital printing on flex, vinyl
36	2036	Heat treatment using oil fired furnace (without cyaniding)
37	2037	Hot mix plants
38	2038	Hotels (< 3 star) (or) hotels having > 20 rooms and less than 100 rooms (or) having waste water generation > 10 KLD and less than 100 KLD and having a coal/Oil fired Boiler
39	2039	Ice cream
40	2040	Industries engaged in recycling / reprocessing/ recovery/ reuse of Hazardous Waste under schedule iv of HW (M, H& TBM) Rules, 2008 - Items namely - Paint and ink Sludge/residues
41	2041	Industries engaged in recycling / reprocessing/ recovery/ reuse of

		Hazardous Waste under schedule iv of HW (M, H & TBM) Rules, 2008 - Items namely - Brass Dross, Copper Dross, Copper Oxide Mill Scale, Copper Reverts, Cake & Residues, Waste Copper and copper alloys in dispersible form, Slags from copper processing for further processing or refining, Insulated Copper Wire, Scrap/copper with PVC sheathing including ISRI-code material namely "Druid", Jelly filled Copper cables, Zinc Dross-Hot dip Galvanizers SLAB, Zinc Dross-Bottom Dross, Zinc ash/Skimming arising from galvanizing and die casting operations, Zinc ash/ Skimming/ other zinc bearing wastes arising from smelting and refining, Zinc ash and residues including zinc alloy residues in dispersible form.
42	2042	Industry or processes involving foundry operations having capacity less than 5 MT/hr as such units require coal/coke at less than 500 Kg/hr
43	2043	Lime manufacturing (using lime kiln)
44	2044	Liquid floor cleaner, black phenyl, liquid soap, glycerol mono-stearate manufacturing
45	2045	Manufacturing of glass (except Lead glass)
46	2046	Manufacturing of iodized salt from crude/ raw salt
47	2047	Manufacturing of mirror from sheet glass
48	2048	Manufacturing of mosquito repellent coil
49	2049	Manufacturing of Starch/Sago
50	2050	Mechanized laundry using oil fired boiler
51	2051	Modular wooden furniture from particle board, MDF< swan timber etc, Ceiling tiles/ partition board from saw dust, wood chips etc., and other agricultural waste using synthetic adhesive resin, wooden box making (With boiler)
52	2052	New highway construction project
53	2053	Non-alcoholic beverages (soft drink) & bottling of alcohol/ non-alcoholic products having waste water generation less than 100 KLD
54	2054	Paint blending and mixing (Ball mill)
55	2055	Paints and varnishes (mixing and blending)
56	2056	Ply-board manufacturing (including Veneer and laminate) with oil fired boiler/ thermic fluid heater(without resin plant)
57	2057	Potable alcohol (IMFL) by blending, bottling of alcohol products
58	2058	Printing ink manufacturing
59	2059	Printing press
60	2060	Reprocessing of waste plastic including PVC
61	2061	Rolling mill (oil or coal fired) and cold rolling mill
62	2062	Spray painting, paint baking, paint shipping
63	2063	Steel and steel products using various furnaces like blast furnace /open hearth furnace/ induction furnace / arc furnace / submerged arc furnace / basic oxygen furnace /hot rolling reheated furnace

64	2064	Stone crushers
65	2065	Surgical and medical products including prophylactics and latex
66	2066	Tephlon based products
67	2067	Thermocol manufacturing (with boiler)
68	2068	Tobacco products including cigarettes and tobacco/ opium processes
69	2069	Transformer repairing/ manufacturing (dry process only)
70	2070	Tyres and tubes vulcanization/ hot retreating
71	2071	Vegetable oil manufacturing including solvent extraction and refinery /hydrogenated oils having waste water generation less than 100 KLD
72	2072	Wire drawing and wire netting
73	2073	Dry cell battery (excluding manufacturing of electrodes) and assembling & charging of acid lead battery on micro scale
74	2074	Pharmaceutical formulation and for R & D purpose (For sustained release/ extended release of drugs and not for commercial purpose)
75	2075	Synthetic resins
76	2076	Synthetic rubber excluding molding
77	2077	Cashew nut processing
78	2078	Coffee seed processing
79	2079	Parboiled Rice Mills having waste water generation less than 100 KLD and fuel consumption less than 12 MTD
80	2080	Foam manufacturing
81	2081	Industries engaged in recycling / reprocessing/ recovery/ reuse of Hazardous Waste under schedule iv of HW (M, H& TBM) Rules, 2008 - Items namely - Used Oil - As per specifications prescribed from time to time.
82	2082	Industries engaged in recycling / reprocessing/ recovery /reuse of Hazardous Waste under schedule iv of HW (M, H& TBM) rules, 2008 - Items namely - Waste Oil-As per specifications prescribed from time to time.
83	2083	Producer gas plant using conventional up drift coal gasification (linked to rolling mills glass and ceramic industry refectories for dedicated fuel supply)
84	2084	Airports and Commercial Air Strips having waste water generation less than 100 KLD
85	2085	Health-care Establishment (as defined in BMW Rules) without Incinerator and having total waste water generation less than 100 KLD
86	2086	Common treatment and disposal facilities- CETP for Orange category Industries
87	2087	Manufacturing of pasted veneers using coal fired boiler and by sun drying
88	2088	Tea processing (with boiler)
89	2089	Railway locomotive work shop / Integrated road transport

		workshop / Authorized service centers having waste water generation less than 100 KLD
90	2090	Match work units
91	2091	Infrastructure development projects including educastional institutions, community hall, kalyanamandam, IT Park, Theme park (having waste water generation <100 KLD).
92	2092	Desalination plant.
93	2093	Sizing Units
94	2094	Chemical mixing cum storage units
95	2095	Natural rubber processing
96	2096	Pesticides formulation
97	2097	Excavation of sand from the River bed (Excluding manual excavation) (The instructions issued by the MoEF&CC from time to time to be followed)
98	2999	Miscellaneous (Orange)

GREEN CATEGORY

Sl No	**Type code**	**Industry sector-Types**
1	3001	Aluminium utensils from aluminium circles by pressing only (dry mechanical operation)
2	3002	Ayurvedic and homeopathic medicines (without boiler)
3	3003	Bakery /confectionery / sweets products (with production capacity <1tpd (with gas or electrical oven)
4	3004	Bi-axially oriented PP film along with metalizing operations
5	3005	Biomass briquettes (sun drying) without using toxic hazardous wastes
6	3006	Blending of melamine resins & different powder, additives by physical mixing
7	3007	Brass and bell metal utensils manufacturing from circles (dry mechanical operation without re-rolling facility)
8	3008	Candy
9	3009	Cardboard or corrugated box and paper products (excluding paper or pulp manufacturing and without using boilers)
10	3010	Carpentry & wooden furniture manufacturing (excluding saw mill) with the help of electrical (motorized) machines such as electrical wood planner, steel saw cutting circular blade, etc.
11	3011	Cement products (without using asbestos / boiler / steam curing) like pipe, pillar, jafri, well ring, block/ tiles etc.(should be done in closed covered shed to control fugitive emissions)
12	3012	Ceramic colour manufacturing by mixing & blending only (not using boiler and wastewater recycling process)
13	3013	Chilling plant, cold storage and ice making
14	3014	Coke briquetting (sun drying)

15	3015	Cotton spinning and weaving (small scale)
16	3016	Dal Mills
17	3017	Decoration of ceramic cups and plates by electric furnace
18	3018	Digital printing on PVC clothes
19	3019	Facility of handling, storage and transportation of food grains in bulk
20	3020	Flour mills (dry process)
21	3021	Glass, ceramic, earthen potteries, tile and tile manufacturing using electrical kiln or not involving fossil fuel kiln
22	3022	Glue from starch (physical mixing) with gas / electrically operated oven / boiler
23	3023	Gold and silver smithy (purification with acid smelting operation and sulphuric acid polishing operation) (using less or equal to 1 litre of sulphuric acid/ nitric acid per month)
24	3024	Heat treatment with any of the new technology like ultrasound probe, induction hardening, ionization beam, gas carburizing etc.(Finalization of categorization subject to field verification)
25	3025	Insulation and other coated papers (excluding paper or pipe manufacturing)
26	3026	Leather foot wear and leather products (excluding tanning and hide processing except cottage scale)
27	3027	Lubricating oil, greases or petroleum based products (only blending at normal temperature)
28	3028	Manufacturing of pasted veneers using gas fired boiler or thermic fluid heater and by sun drying (except coal fired Boiler)
29	3029	Oil mill Ghani and extraction (no hydrogenation / refining)
30	3030	Packing materials manufacturing from non asbestos fibre, vegetable fibre yarn
31	3031	Phenyl / toilet cleaner formulation and bottling
32	3032	Polythene and plastic processed products manufacturing (virgin plastic)
33	3033	Poultry, Hatchery and piggery
34	3034	Power looms (without dye and bleaching)
35	3035	Puffed rice (muri) (using gas or electrical heating system)
36	3036	Pulverization of bamboo and scrap wood
37	3037	Ready mix cement concrete
38	3038	Reprocessing of waste cotton
39	3039	Rice mill (Rice hullers only)
40	3040	Rolling mill (gas fired) and cold rolling mill
41	3041	Rubber goods industry (with gas operated baby boiler)
42	3042	Saw mills
43	3043	Soap manufacturing (hand made without steam boiling / boiler)
44	3044	Spice grinding (20 HP motor)
45	3045	Spice grinding (20 hp motor)
46	3046	Steel furniture without spray painting

47	3047	Steeping and processing of grains
48	3048	Tyres and tube retreating (without boilers)
49	3049	Chilling plant and ice making without using ammonia
50	3050	CO2 recovery
51	3051	Distilled water (without boiler) with electricity as source of heat
52	3052	Hotels (up to 20 rooms and without boilers) having waste water generation less than 10 KLD and no Hazardous waste generation
53	3053	Manufacturing of optical lenses (using electrical furnace)
54	3054	Mineralized water
55	3055	Tamarind powder manufacturing
56	3056	Cutting, sizing and polishing of marble stone
57	3057	Emery powder (fine dust of sand) manufacturing
58	3058	Flyash export, transport & disposal facilities
59	3059	Mineral stack yard / Railway sidings
60	3060	Oil and gas transportation pipeline contains small gas based power plants upto 5 MW
61	3061	Seasoning of wood in steam heated chamber
62	3062	Synthetic detergent formulation units which are not manufacturing LABSA
63	3063	Tea processing (without boiler)
64	3064	Modular wooden furniture from particle board, MDF< swan timber etc, Ceiling tiles/ partition board from saw dust, wood chips etc., and other agricultural waste using synthetic adhesive resin, wooden box making (Without boiler)
65	3065	Crematorium
66	3066	Light Engineering & Fabrication units with painting.
67	3067	Steam calendaring / Zero zero finishing/centering etc.
68	3068	Stone and Granite cutting, sizing and polishing units
69	3999	Miscellaneous (Green)

White Category

Sl No	**Type code**	**Industry sector-Types**
1	4001	Assembly of air coolers / conditioners, repairing and servicing
2	4002	Assembly of bicycles, baby carriages and other small non motorizing vehicles
3	4003	Bailing (hydraulic press)of waste papers
4	4004	Bio fertilizer and bio-pesticides without using inorganic chemicals
5	4005	Biscuits trays etc from rolled PVC sheet (using automatic vacuum forming machines)
6	4006	Blending and packing of tea
7	4007	Block making of printing without foundry (excluding wooden block making)
8	4008	Chalk making from plaster of Paris (only casting without boilers etc. (sun drying / electrical oven)

9	4009	Compressed oxygen gas from crude liquid oxygen (without use of any solvents and by maintaining pressure & temperature only for separation of other gases)
10	4010	Cotton and woolen hosiers making (Dry process only without any dying / washing operation)
11	4011	Diesel pump repairing and servicing (complete mechanical dry process)
12	4012	Electric lamp (bulb) and CFL manufacturing by assembling only
13	4013	Electrical and electronic item assembling (completely dry process)
14	4014	Engineering and fabrication units (dry process without any heat treatment / metal surface finishing operations / painting)
15	4015	Flavoured betel nuts production/ grinding (completely dry mechanical operations)
16	4016	Fly ash bricks/ block manufacturing
17	4017	Fountain pen manufacturing by assembling only
18	4018	Glass ampules and vials making from glass tubes
19	4019	Glass putty and sealant (by mixing with machine only)
20	4020	Ground nut decorticating
21	4021	Handloom/ carpet weaving (without dying and bleaching operation)
22	4022	Leather cutting and stitching (more than 10 machine and using motor)
23	4023	Manufacturing of coir items from coconut husks
24	4024	Manufacturing of metal caps containers etc
25	4025	Manufacturing of shoe brush and wire brush
26	4026	Medical oxygen
27	4027	Organic and inorganic nutrients (by physical mixing)
28	4028	Organic manure (manual mixing)
29	4029	Packing of powdered milk
30	4030	Paper pins and u clips
31	4031	Repairing of electric motors and generators (dry mechanical process)
32	4032	Rope (plastic and cotton)
33	4033	Scientific and mathematical instrument manufacturing
34	4034	Solar module non conventional energy apparatus manufacturing unit
35	4035	Wind and Solar renewable power plants of all capacities and Mini Hydel power plant of capacity <25MW
36	4036	Surgical and medical products assembling only (not involving effluent / emission generating processes)

Note: When any industry not listed in Red, Orange, Green & White category wants to apply, then the DEE shall workout the score as per CPCB guidelines & arrive at the category. Then the industry shall be asked to select Miscellaneous type available in that category.

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 Reservoir 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 Reservoir 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 Reservoir New Canal
PUDUKKOTTAI DISTRICT			
1.	Vellar	-	Grand Anicut Canal
2.	Ambuliyaru	-	-
3.	Angiceru	-	-
4.	Koraiar	-	-
MADURAI AND THENI DISTRICTS			
1.	Vaigai	Vaigai Reservoir	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.	Tamiraparani	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 Channel
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.	Cauvery	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 Channel - 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, மற்றும் 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 தொழிற்சாலைகள் இவ்வாணையில் இணைப்பு II இல் கண்டுள்ள நீர் ஆதாரங்களிலிருந்து 1 கி. மீட்டர் தூரத்திற்குள் நிறுவப்பட அனுமதி அளித்தல் கூடாது என்று ஆணையிடப்பட்டது. பின்னர் 8.5.98 ஆம் நாளிட்ட சுற்றுச் சூழல் மற்றும் வனத்துறை அரசாணை (நிலை) எண். 127 இல் இன்ன பிறவற்றுடன் காவிரி மற்றும் 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 மற்றும் 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 தொழிற்சாலைகளும் நீர் (மாசு தடுப்பு மற்றும் கட்டுப்பாடு சட்டம் 1974–இன் கீழ் அடங்கும். அத்தொழிற்சாலைகள் கழிவுகளை வெளியேற்ற தமிழ்நாடு மாசு கட்டுப்பாடு வாரியத்தின் இசைவைப் (consent) பெற வேண்டும்.

2. இதே போல், காற்று (மாசு தடுப்பு மற்றும் கட்டுப்பாடு) சட்டம் 1981–இன் கீழ் 20 வகை தொழிற்சாலைகள் 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, ஜவ்வரிசி, 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

ஒம்/– 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:

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

மேலும் படிக்க:

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

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

(f) 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, சுற்றுப்புறச்சூழல் 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 & Pharmaceuticals	மருந்து கலவை தயாரிக்கும் தொழிற்சாலைகள்
7	1014	Cement	சிமெண்ட் தொழிற்சாலைகள்
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	கூழணம் மற்றும் அலன் 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 oil)	உணவு எண்ணெய் தயாரிப்பு ஆலை
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.

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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, quality of effluent discharge from the industries and ambient air quality levels are recorded continuously on real time basis (24x7). All instances of exceedance of norms will be informed to the District Environmental Engineer and the

unit authorities by SMS and e.mail alert.

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) 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) 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 place but different source upto 24 hours	1650
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	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) Processing/ Pretreatment charge per Sample	300

	(Filter Paper)	
	(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,	4000

	Rubidium, Rutherfordium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur, Tellurium, Tin, Titanium, Tungsten, Vanadium, Ytterbium and Zinc per sample	
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

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, Forests & Climate Change, Government of India, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganji, Regional office 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. Regional office 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.
15	Directorate of Industrial Safety & Health, Indian Officers Association Building, Old No. 69, New No. 35, Thiru-Vi-Ka High Road, Royapattah, Chennai – 600 014. Tel: 044-28112144, 28112145 Fax: 044-28110198 Email: cif@tn.gov.in

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