



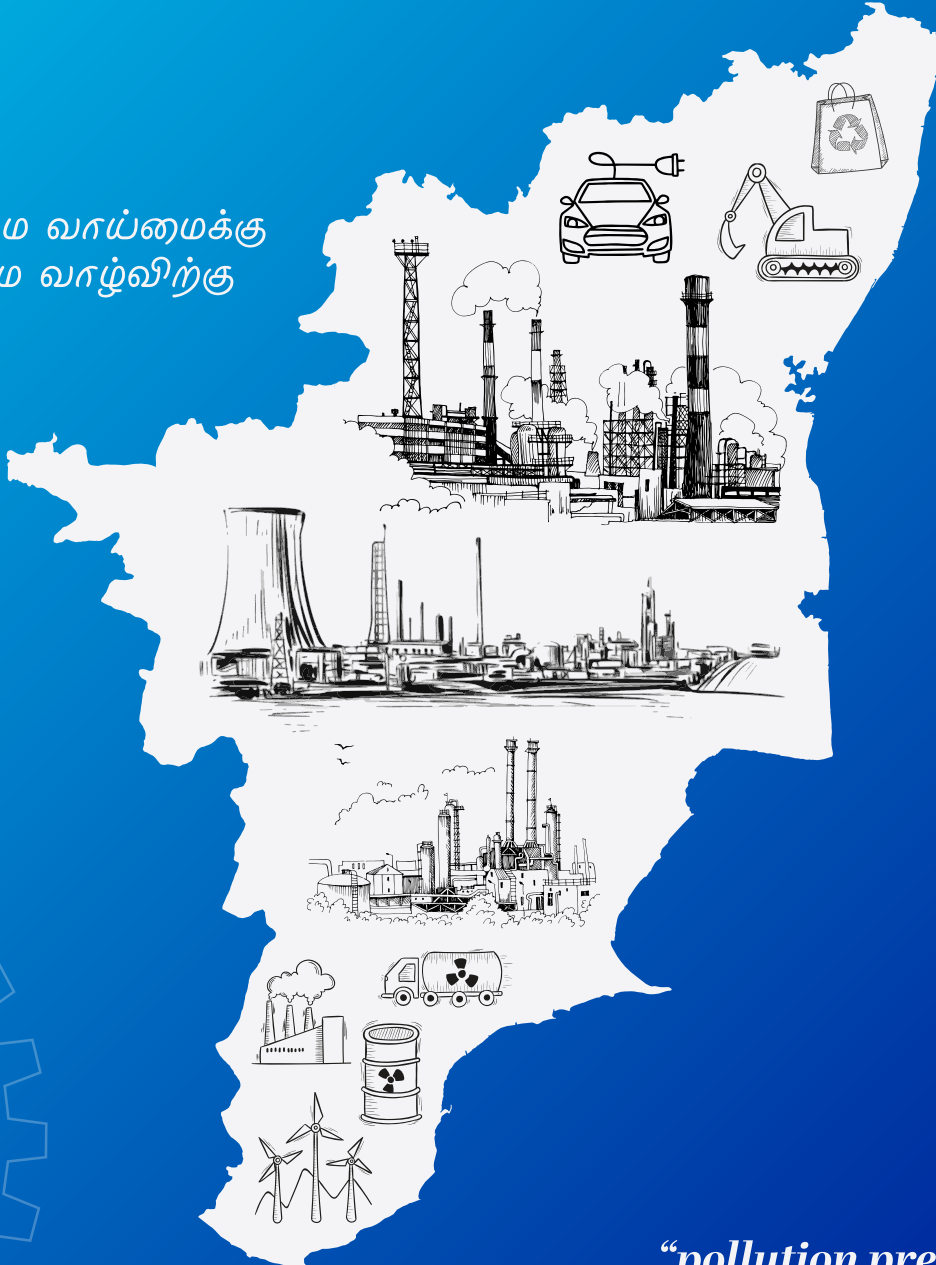
TAMIL NADU POLLUTION CONTROL BOARD

TNPCB & YOU

A Ready Reckoner for Entrepreneurs

2023

அகம் தூய்மை வாய்மைக்கு
புறம் தூய்மை வாழ்விற்கு



“pollution prevention pays”



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INDEX

Chapter	Content		Page
1	ABOUT TNPCB		01
	1.1	Introduction	03
	1.2	Vision of TNPCB	03
	1.3	Functions of TNPCB	03
	1.4	Constitution of TNPCB	04
	1.5	Organisational set up	04
	1.6	Environmental Legislations	05
	1.7	Consent Management	06
	1.8	Offices and Laboratories of Tamil Nadu Pollution Control Board	07
2	POLLUTION CONTROL LEGISLATIONS		09
	2.1	The Water (Prevention and Control of Pollution) Act, 1974	11
	2.1.1	Salient features of the Water (Prevention and Control of Pollution) Act, 1974, as amended	11
	2.1.2	The Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983	12
	2.1.3	Schedules and Forms	14
	2.1.4	Standards for Discharge of Trade Effluent	15
	2.1.5	Standards for Sewage Treatment Plants (STPs)	18
	2.1.6	Consent Fee Applicable under the Water (Prevention and Control of Pollution) Act, 1974	19
	2.2	The Air (Prevention and Control of Pollution) Act, 1981	20

		2.2.1	Salient Features of the Air (Prevention and Control of Pollution) Act, 1981, as Amended in 1987	20
		2.2.2	Salient features of the Tamil Nadu Air (Prevention and Control of Pollution) Rules 1983	21
		2.2.3	Schedules and Forms	22
		2.2.4	National Ambient Air Quality Standards	23
		2.2.5	Consent Fee Applicable under the Air (Prevention and Control of Pollution) Act, 1981	25
3	THE ENVIRONMENTAL (PROTECTION) ACT, 1986 - THE UMBRELLA ACT			27
	3.1	Salient Features of the Environment (Protection) Act, 1986 (No. 29 of 1986)		29
	3.2	Salient Features of the Environment (Protection) Rules, 1986		32
	3.3	Schedules and Forms		33
	3.4	Emission Standards prescribed under Environment (Protection) Rules, 1986, for various Industries		34
	3.5	Environmental Statement		36
4	WASTE MANAGEMENT NOTIFICATIONS			41
	4.1	The Bio-Medical Waste Management Rules, 2016		43
	4.2	The Construction and Demolition Waste Management Rules, 2016		49
	4.3	The E-Waste (Management) Rules, 2016 as amended in 2018		52
	4.4	The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016		56
		4.4.1	Salient features of Hazardous and Other	56

			Wastes (Management and Transboundary Movement) Rules, 2016	
		4.4.2	Schedules and Forms	59
		4.4.3	Procedure for obtaining Authorization for Industries Generating Hazardous Waste from SPCB:	60
		4.4.4	Procedure for obtaining authorization with Passbook by actual users /recyclers/ utilizers/pre-processors/coprocessors	61
		4.4.5	Procedure for obtaining One Time Authorization by Traders to import other wastes listed on Part - D of Schedule III:	62
	4.5	The Plastic Waste Management Rules, 2016		63
		4.5.1	Salient features of the Plastic Waste Management Rules, 2016	63
		4.5.2	Schedules and Forms	66
		4.5.3	Banned SUPs by Govt of Tamil Nadu & MoEF&CC	68
	4.6	The Solid Waste Management Rules, 2016		69
		4.6.1	Salient features of the Solid Waste Management Rules, 2016	69
		4.6.2	Schedules and Forms	75
	4.7	Battery Waste Management Rules, 2022		76
		4.7.1	Salient features of the Battery Waste Management Rules, 2022	76
		4.7.2	Schedules and Forms	
	4.8	Tyre waste Management		86
		4.8.1	Salient features of the Tyre waste Management	86

5	IMPORTANT NOTIFICATIONS UNDER ENVIRONMENTAL (PROTECTION) ACT, 1986		89
	5.1	Environment Impact Assessment (EIA) Notification, 2006 as amended	91
		5.1.1 Environment Impact Assessment (EIA) Definition	91
		5.1.2 Purpose of EIA	91
		5.1.3 EIA Notifications in India	91
		5.1.4 List of Projects or Activities Requiring Prior Environmental Clearance	93
		5.1.5 Environment Impact Assessment Process	101
	5.2	Costal Regulation Zone Notification	102
		5.2.1 Costal Regulation Zone Area	103
		5.2.2 Costal Regulation Zone Classification	103
		5.2.3 Procedure for CRZ clearance of permissible activities	104
		5.2.4 Validity of CRZ clearance	104
	5.3	The Noise Pollution (Regulation And Control) Rules, 2000	105
6	CATEGORIZATION OF INDUSTRIES		109
	6.1	Classification of Industries Based on Gross Fixed Assets	111
	6.2	Categorization of Industries	111
		6.2.1 CPCB Guidelines for Categorization of Industrial Sectors under Red, Orange, Green and White Category	111
		6.2.2 Categorization of Industries by TNPCCB	113
	6.3	17 Category of Highly Polluting Industries	125

7	PROCEDURE FOR OBTAINING CONSENT, SITING CRITERIA AND GUIDELINES FOR INDUSTRIES		127
	7.1	Consent to Establish	129
	7.2	Consent to Operate	130
	7.3	Renewal of Consent	131
	7.4	Power delegation for the issue of consent orders, renewal of consent orders	132
	7.5	Duties and responsible authorities with respect to inspection sampling and complaint investigation	133
	7.6	Ban on setting up of highly polluting industries	134
	7.6.1	Ban on setting up of highly polluting industries from Water bodies	134
	7.6.2	List of highly polluting industries	135
	7.6.3	List of Rivers, Streams, Reservoirs etc.	135
	7.6.4	Details of Tributories and Distributaries of River Cauvery in the Jurisdiction Trichy Region, furnished By PWD,WRO, Trichy Region	141
	7.6.5	Cauvery Delta Region - Prohibition of Certain New Industrial Activities under the Environment (Protection) Act, 1986	143
	7.7	Siting Criteria	144
	7.7.1	Norms for the location of stone crushing industries	144
	7.7.2	Siting Criteria and Guidelines for M-Sand unit	144
	7.7.3	Guidelines for Hot Mix Plant	145
	7.7.4	Siting criteria for solid/ hollow brick manufacturing units	145
	7.7.5	Siting criteria for Ready mix concrete plants	146

		7.7.6	Siting criteria for Charcoal units	146
		7.7.7	Siting criteria for Brick kiln units	147
		7.7.8	Siting criteria for Sewage treatment plants	147
8	MISCELLANEOUS			149
	8.1	Schedule of Sampling and Analysis Charges for Environmental Samples in TNPCB Laboratories		151
		8.1.1	Sampling charges	151
		8.1.2	Analysis Charges	154
	8.2	Care Air Centre		168
	8.3	Water Quality Watch Centre		168
	8.4	Environmental Compensation		168
		8.4.1	Environmental Compensation to be Levied on Industrial units	168
		8.4.2	Environmental Compensation for Healthcare Facilities (HCFs):	170
		8.4.3	Environmental Compensation for Common Biomedical Waste Treatment Facility (CBWTF)	172
	8.5	Sustainable Development Goals		174

CHAPTER 1

ABOUT TNPCB



CHAPTER 1

ABOUT TNPCB

1.1 INTRODUCTION

Tamil Nadu Pollution Control Board (TNPCB) was constituted by the Government of Tamil Nadu 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 Air (Prevention and Control of Pollution) Act, 1981, Environment (Protection) Act, 1986 and the rules made under these Act.

1.2 VISION OF TNPCB

Tamil Nadu being pollution free with a healthy and vibrant environment for present and future generations through sustainable practices.

1.3 FUNCTIONS OF TNPCB

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

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

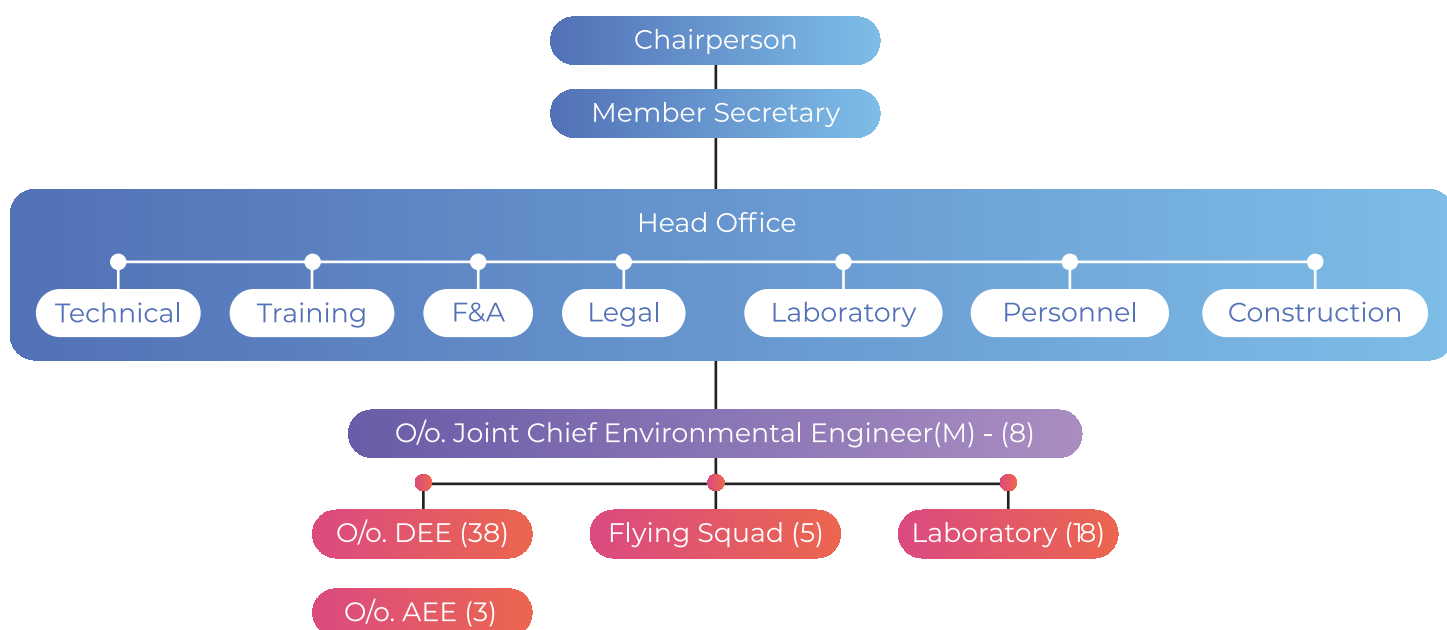
1.4 CONSTITUTION OF TNPCB

The TNPCB is constituted by the State Government as per Section 4 of the Water (Prevention and Control of Pollution), Act, 1974. 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.



1.5 ORGANISATIONAL SET UP

The TNPCB has established its organization structure with a three-tier system consisting of head-office at Chennai and 8 zonal offices headed by Joint Chief Environmental Engineers (JCEE) and 38 district offices headed by District Environmental Engineers (DEE). To assist the Board in monitoring the industries, 8 Advanced Environmental Laboratories, 10 District Environmental Laboratories are functioning. These laboratories carry out analysis on samples of sewage, trade effluents, emissions and hazardous wastes.



1.6 ENVIRONMENTAL LEGISLATIONS

- The Water (Prevention and Control of Pollution) Act, 1974.

- The Tamilnadu Water (Prevention and Control of Pollution) Rules, 1983.
- The TamilNadu Air (Prevention and Control of Pollution) Rules, 1983.

- Manufacture, Storage and Import of Hazardous Chemical Rules, 1989.
- The Manufacture, Use, Import, Export and Storage of Hazardous Micro organisms / genetically engineered organisms or cells Rules, 1989.

- The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996

- Noise Pollution (Regulation and Control) Rules, 2000.
- Ozone Depleting Substances (Regulation and Control) Rules, 2000.

- The National Green Tribunal Act, 2010.

- Coastal Regulation Zone Notification, 2019.

1974

1981

1983

1986

1989

1991

1996

1999

2000

2006

2010

2016

2019

2022

- The Air (Prevention and Control of Pollution) Act, 1981.

- The Environment (Protection) Act, 1986.
- The Environment (Protection) Rules, 1986.

- The Public Liability Insurance Act, 1991.
- The Public Liability Insurance Rules, 1991.

- Utilization of Fly Ash from Coal or Lignite based Thermal Power Plants Notification, 1999.

- The Environment Impact Assessment Notification, 2006.

- The Solid Wastes Management Rules, 2016.
- The Bio-Medical Waste Management Rules, 2016.
- The Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.
- The Plastics Waste Management Rules, 2016.
- The E-Waste Management Rules, 2016.
- Construction and Demolition Waste Management Rules, 2016.

- Battery Waste Management Rules, 2022.
- E- Waste (Management) Rules, 2022 (force from 01.04.2023)

Note: In view of introduction of Goods and Services Tax from 01.07.2017, The Water (Prevention and Control of Pollution) Cess, Act, 1977 is fully repealed as per the Section 18(1) of the Taxation Laws (Amendment) Act, 2017 (No. 18 of 2017).

CONSENT MECHANISM

Industries need to obtain Consent from TNPCB under,

- Water (P&CP) Act, 1974 to discharge sewage / trade effluent.
- Air (P&CP) Act, 1981 to operate the industrial plant.

STAGES OF CONSENT

- Consent to Establish (CTE) for establishing industries.
- Consent to Operate (CTO) and subsequent renewal for operating the industries.

Application filing and issue of consents are being dealt through Online Consent Management and Monitoring System (OCMMS) and are nearly paperless process.

Note: In view of introduction of Goods and Services Tax from 01.07.2017, The Water (Prevention and Control of Pollution) Cess, Act, 1977 is fully repealed as per the Section 18(1) of the Section 18(1) of the Taxation Laws (Amendment) Act, 2017 (No. 18 of 2017).

AUTHORIZATION UNDER WASTE MANAGEMENT RULES

- Solid Waste Management Rules, 2016
- The Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016
- Construction and Demolition Waste Management Rules, 2016
- E-Waste (Management) Rules, 2016
- Bio Medical Waste Management Rules, 2016
- The Plastics Waste Management Rules, 2016
- Battery Waste Management Rules, 2022
- E- Waste (Management) Rules, 2022 (force from 01.04.2023)



VARIOUS COMMITTEES

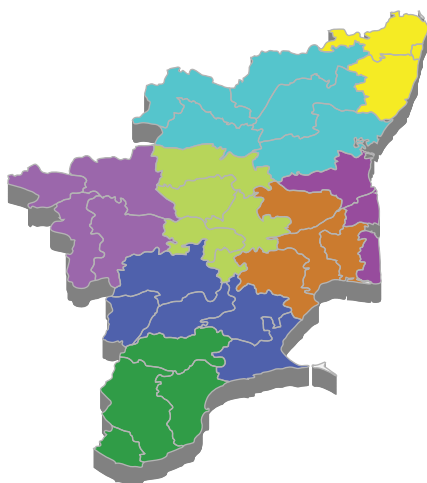
- **Consent**
 - i. Technical Sub Committee (TSC)
 - ii. Consent Clearance Committee (CCC)
 - iii. Zonal Level Consent Clearance Committee (ZLCCC)
 - iv. District Level Consent Clearance Committee (DLCCC)
- **Expansion/ Modernization / product mix in the existing Environmental Clearance**
 - i. Pollution Load Assessment Committee (PLAC)
- **District level action against the polluting/illegal units**
 - i. District Co-ordination Committee (DCC)



Open House held on 5th of every month in all District offices and Head office of TNPCB for personal interaction with the officials of TNPCB

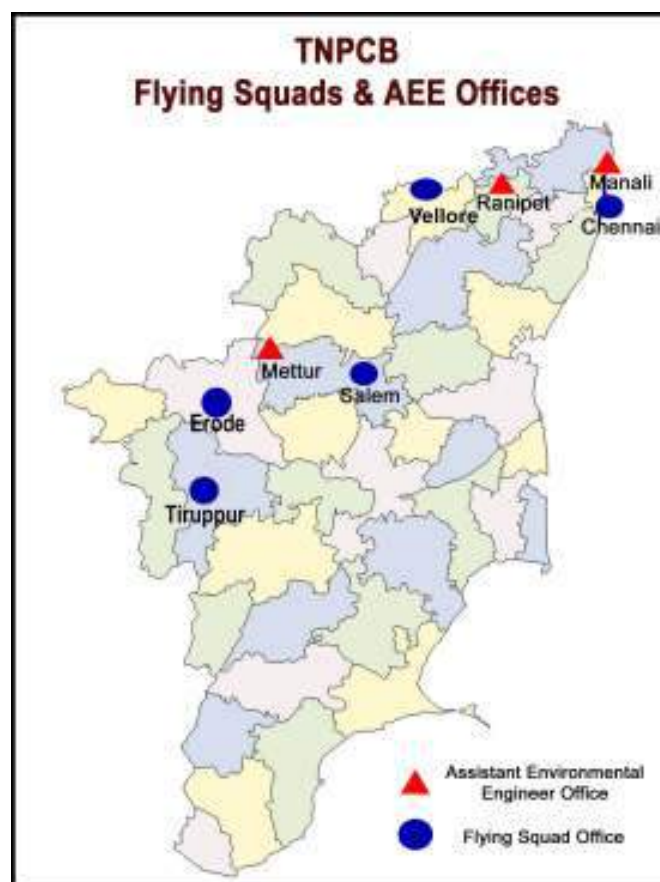
ZONAL OFFICES - 8

TNPCCB JOINT CHIEF ENVIRONMENTAL ENGINEER(M) OFFICES

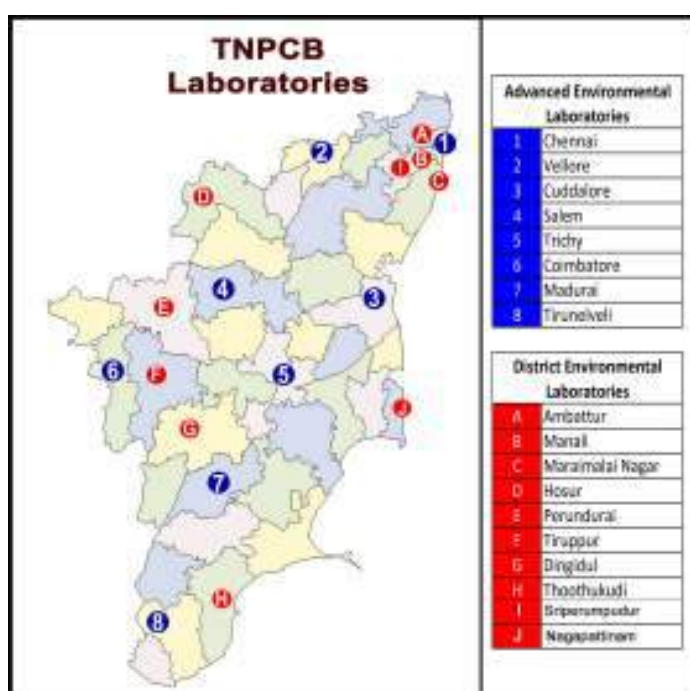


Chennai	Salem
Vellore	Coimbatore
Cuddalore	Madurai
Tiruchirappalli	Tirunelveli

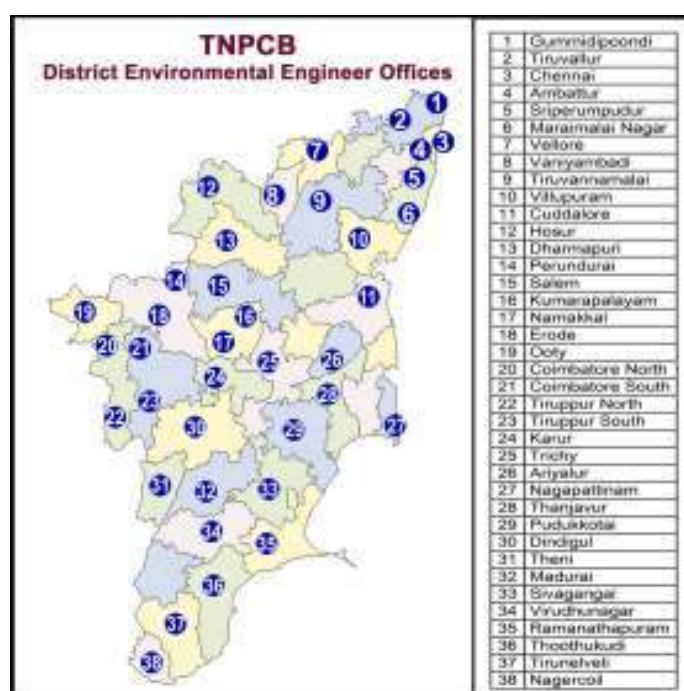
FLYING SQUADS & AEE OFFICES



LABORATORIES



DISTRICT OFFICES - 38



CHAPTER 2

POLLUTION CONTROL LEGISLATIONS



CHAPTER 2

POLLUTION CONTROL LEGISLATIONS

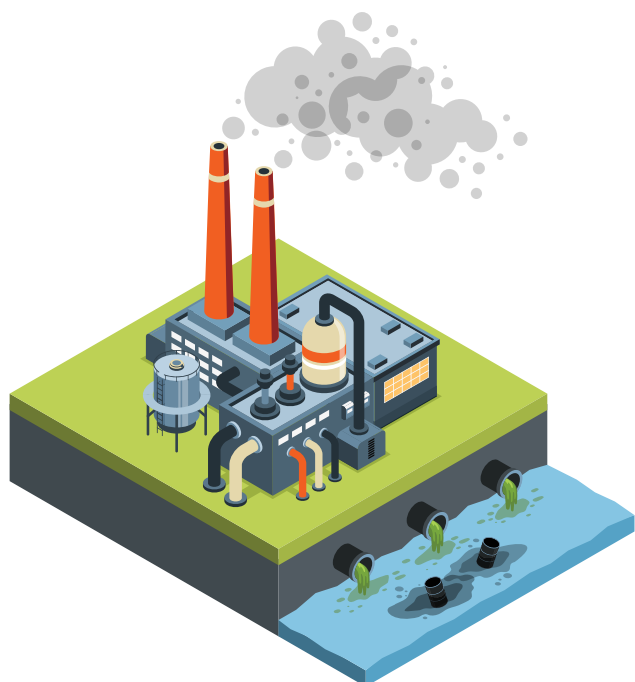
2.1 THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974

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

SECTIONS	
Section 17	Functions of State Board: Empowers the Board to lay down standards for sewage / trade effluent among other functions.
Section 21	Power to take samples of effluents and procedure to be followed in connection therewith: Empowers the Board to collect samples for the purpose of analysis samples of water from any stream or well or samples of any sewage or trade effluent which is passing from any plant or vessel or from or over any place into any such stream or well.
Section 23	Power to entry and inspection: Empowers the Board to enter any industry at any time for the purpose of performing any of the functions of the Board.
Section 24	Prohibits the pollution of a stream or well by disposal of polluting matter etc.: No person shall knowingly cause or permit any poisonous, noxious or polluting matter determined in accordance with such standards as may be laid down by the State Board to enter (whether directly or indirectly) into any stream or well or sewer or on land
Section 25 & 26	Restrictions on new outlets and new discharges: 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.
Section 27	Refusal or withdrawal of consent by State Board: Empowers the Board for Refusal or withdrawal of consent to any industry.
Section 28	Appeals: 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 31	Furnishing of information to State Board and other agencies in certain cases: Requires furnishing of information by the person incharge of the place to the Board about the accidental discharge of poisonous, noxious or polluting matter.
Section 32	Emergency measures in case of pollution of stream or well: Empowers the Board to take action on the presence of noxious any poisonous 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.

SECTIONS

Section 33A	Power to give directions: Empowers the Board to issue directions for closure of the industry or for stoppage of electricity, water supply or any other service.
Section 33B	Appeal to National Green Tribunal: Provides for appeal to National Green Tribunal by any person aggrieved an order of the appellate authority under Section 28, order passed by the State Government under section 29, directions issued under section 33-A by the Board.
Section 43	Penalty for contravention of provisions of section 24: 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	Penalty for contravention of provisions of section 25 or section 26: 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 55	Local authorities to assist: 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.
Section 58	Bar of Jurisdiction: 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. No injunction shall be granted by any Court or authority in respect of any action taken or to be taken in pursuance of any power conferred by or under this Act.
Section 64	Empowers the State Government to make rules to carry out the purposes of this Act.



THE WATER (PREVENTION AND CONTROL OF POLLUTION) ACT, 1974



2.1.2 SALIENT FEATURES OF THE TAMIL NADU WATER (PREVENTION AND CONTROL OF POLLUTION) RULES, 1983

The Government of Tamil Nadu vide G.O. Ms. No. 2, Environment Control, dated 26th September 1983 has notified The Tamil Nadu Water (P&CP) Rules, 1983

SALIENT FEATURES: RULES

Rule 20

Appointment of consulting Engineer:

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 of the Act shall be in Form I of Schedule-I

Rule 26A

Consent fee:

Consent fee shall be paid at the rates by the industries and the local bodies specified in the Table in Rule 26A and as revised from time to time. (Refer. Chapter 2.1.10)

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 of Schedule I. The applicant shall provide to such officer all facilities that such officer may legitimately require for the purpose.

Rule 27A

Form and manner in which appeal may be preferred under section 28 and the procedure to be followed by the appellate authority :

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.

2.1.3 SCHEDULES & FORMS

SCHEDULE I

Form-I	Notice of Intention to have sample analysed
Form-II	Form for Industries – Application for Consent for discharge/continuation of discharge under Section 25/26 of Water (P&CP) Act, 1974
Form-III	Form for Local Bodies-Application for Consent for discharge /continuation of discharge under Section 25/26 of Water (P&CP) Act, 1974
Form-IV	Notice of Inspection
Form-IV-A	Form of Appeal under Section 28 of Water (P&CP) Act, 1974
Form-IV-B	Form of Notice issue by Appellate Authority to the Appellant
Form-V	Report by the Government Analyst
Form-VI	Report by the Board Analyst
Form-VII	Proposals for revised Estimate
Form-VII-A	Detailed Budget estimate
Form-VIII Form-IX Form-X	Omitted by G.OMs.No. 270 Environment and Forest, dated 10th July 1992
Form-XI	Receipts and Payments for the year ended 31st March ...
Form-XII	Income and Expenditure Account for the year ended 31st March ...
Form-XIII	Balance Sheet as at 31st March
Form-XIV	Annual Statement of Accounts - Expenditure on works as on 31st March ...
Form-XV	Annual Statement of Accounts - Fixed Assets & Other Assets as on 31st March...
Schedule-II	Budget and Account Heads
Schedule-III	Annual Report for the Financial Year April... to March...



THE TAMIL NADU WATER (PREVENTION AND CONTROL OF POLLUTION) RULES, 1983

2.1.4 STANDARDS FOR DISCHARGE OF TRADE EFFLUENT

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

STANDARDS FOR DISCHARGE OF TRADE EFFLUENT INTO					
S.No	Parameters	Inland surface water	Public sewers	On land for irrigation	Marine coastal areas
1.	Color and odor	-	-	-	-
2.	Suspended Solids, mg/L	100	100	100	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

2.1.4 STANDARDS FOR DISCHARGE OF TRADE EFFLUENT

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

STANDARDS FOR DISCHARGE OF TRADE EFFLUENT INTO

S.No	Parameters	Inland surface water	Public sewers	On land for irrigation	Marine coastal areas
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	5.5 to 9
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	-

2.1.4 STANDARDS FOR DISCHARGE OF TRADE EFFLUENT

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

STANDARDS FOR DISCHARGE OF TRADE EFFLUENT INTO

S.No	Parameters	Inland surface water	Public sewers	On land for irrigation	Marine coastal areas
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 ₆ H ₅ OH) 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



2.1.5 STANDARDS FOR SEWAGE TREATMENT PLANTS (STPS)

(Source: MOEF&CC notification wide G.S.R. 1265(E), Dated 13.10.2017)

Sl. No.	Industry	Parameters	Standards	
1	2	3	4	
		Effluent discharge standards (applicable to all mode of disposal)		
“105	Sewage Treatment Plants (STPs)		Location	Concentration not to exceed
			(a)	(b)
		pH	Anywhere in the country	6.5-9.0
		Bio -Chemical Oxygen Demand (BOD)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Tripura Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir, and Union territory of Andaman and Nicobar Islands, Dadar and Nagar Haveli Daman and Diu and Lakshadweep	20
			Areas/regions other than mentioned above	30
		Total Suspended Solids (TSS)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Tripura Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir and Union territory of Andaman and Nicobar Islands, Dadar and Nagar Haveli Daman and Diu and Lakshadweep	<50
			Areas/regions other than mentioned above	<100
Fecal Coliform (FC) (Most Probable Number per 100 milliliter, MPN/100ml	Anywhere in the country	<1000		

Notes:

- All values in mg/l except for pH and Fecal Coliform
- These standards shall be applicable for discharge into water bodies as well as for land disposal/applications.
- The standards for Fecal Coliform shall not apply in respect of use of treated effluent for industrial purposes.
- These Standards shall apply to all STPS to be commissioned on or after the 1st June, 2019 and the old/existing STPs shall achieve these standards Within a period of five years from date of publication of this notification in the Official Gazette.
- In case of discharge of treated effluent into sea, it shall be through proper marine outfall and the existing shore discharge shall be converted to marine outfalls, and in cases where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100 meters away from discharge point, then, the existing norms shall apply as specified in the general discharge standards.
- Reuse/Recycling of treated effluent shall be encouraged and in cases Where part of the treated effluent is reused and recycled involving possibility of human contact, standards as specified above shall apply.
- Central Pollution Control Board/State Pollution Control Boards/Pollution Control Committees may issue more stringent norms taking account to local condition under section 5 of the Environment (Protection) Act, 1986".

2.1.6 CONSENT FEE APPLICABLE UNDER THE WATER (P&CP) ACT, 1974 (AS PER RULE 26A)

[G.O. Ms No.40, Environment and Forests (EC 1) Department, Dated 09.04.2018]

Sl. No	Gross Fixed Assets	Amount of Consent Fee (Rupees)		
		Red Category	Orange Category	Green Category
1	Upto Rs. 1 lakhs	400	300	200
2	Above Rs. 1 lakhs and upto Rs. 2 lakhs	700	600	400
3	Above Rs. 2 lakhs and upto Rs. 3 lakhs	900	700	600
4	Above Rs. 3 lakhs and upto Rs. 4 lakhs	1100	1000	800
5	Above Rs. 4 lakhs and upto Rs. 5 lakhs	1300	1100	1000
6	Above Rs. 5 lakhs and upto Rs. 6 lakhs	1700	1500	1200
7	Above Rs. 6 lakhs and upto Rs. 7 lakhs	2000	1700	1400
8	Above Rs. 7 lakhs and upto Rs. 8 lakhs	2200	2000	1600
9	Above Rs. 8 lakhs and upto 9 lakhs	2400	2100	1800
10	Above Rs. 9 lakhs and upto Rs. 10 lakhs	2600	2400	2000
11	Above Rs. 10 lakhs and upto Rs. 15 lakhs	3700	3100	2500
12	Above Rs. 15 lakhs and upto Rs. 20 lakhs	4400	3600	3000
13	Above Rs. 20 lakhs and upto Rs. 25 lakhs	5000	4200	3500
14	Above Rs. 25 lakhs and upto Rs. 35 lakhs	6000	4900	4100
15	Above Rs. 35 lakhs and upto Rs. 45 lakhs	7400	5600	5100
16	Above Rs. 45 lakhs and upto Rs. 55 lakhs	8900	7400	6100
17	Above Rs. 55 lakhs and upto Rs. 65 lakhs	10400	8400	7100
18	Above Rs. 65 lakhs and upto Rs. 75 lakhs	13100	10500	8100
19	Above Rs. 75 lakhs and upto Rs. 1 crore	16300	12600	10100
20	Above Rs. 1 crore and upto Rs. 5 crores	21800	17900	14200
21	Above Rs. 5 crores and upto Rs. 10 crores	Rs.105/- per lakh	Rs. 65/- per lakh	Rs. 42/- per lakh
22	Above Rs. 10 crores and upto Rs. 50 crores	Rs. 105000/- + Rs. 40/- per lakh	Rs. 65000/- + Rs. 30/- per lakh	Rs. 42000/- + Rs. 12/- per lakh
23	Above Rs. 50 crores and upto Rs. 100 crores	Rs. 265000/- + Rs. 23/- per lakh	Rs. 185000/- + Rs. 15/- per lakh	Rs. 90000/- + Rs. 12/- per lakh
24	Above Rs. 100 crores and upto Rs. 1000 crores	Rs. 380000/- + Rs. 5/- per lakh	Rs. 260000/- + Rs. 4/- per lakh	Rs. 150000/- + Rs. 3.00 per lakh
25	Above Rs. 1000 crores	Rs. 830000/- + Rs. 3/- per lakh (Max Rs. 31 lakhs)	Rs. 620000/- + Rs. 2.00- per lakh (Max Rs. 23 lakhs)	Rs. 420000/- + Rs. 1.00- per lakh (Max Rs. 8 lakhs)

2.2 THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981

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

SECTIONS	
Section 19	Power to declare air pollution control areas: Entire State of Tamil Nadu has been declared as air pollution control area by the State Government under Section 19.
Section 20	Power to give instructions for ensuring standards for emission from automobiles: Empowers the State Government give instructions to the concerned authority in charge of registration of motor vehicles to comply with the standards for emission of air pollutants from automobiles laid down by the State Board.
Section 21	Restrictions on use of certain industrial plants: Requires the industries to obtain the consent from the Board to establish/ operate the unit in the air pollution control area.
Section 22	Persons carrying on industry, etc. not to allow emission of air pollutants in excess of the standards laid down by State Board:- Prohibits the emission of pollutants in excess of the standards laid down by the Board.
Section 23	Furnishing of information to State Board and other agencies in certain cases: 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, and the Executive Authority of the Local body and the nearest Police Station.
Section 24	Power to entry and inspection: Empowers the Board to enter any place at all reasonable time for the purpose of performing any of the functions of the Board.
Section 26	Power to take samples of air or emission and procedure to be followed in connection therewith: Empowers the Board for collection of samples of air or emissions from any chimney, stack, flue or duct or any other outlet.
Section 31	Appeals: Provides for appeal against the orders of the Board under Section 21. Appeal has to be made to the Appellate Authority, within thirty days from the date of communication of the order.
Section 31A	Power to give directions: 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: It 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.
Section 38	Penalties for certain Acts: Offences like furnishing false information, non-furnishing information is punishable with imprisonment upto 3 months and a fine upto 10,000 rupee or both.
Section 54	Power of State Government to make rules: Empowers the State Government to make rules to carry out the purpose of this Act in respect of matter not falling with the purview of section 53 (Power of Central Government to make rules).



2.2.2 SALIENT FEATURES OF THE TAMIL NADU AIR (PREVENTION AND CONTROL OF POLLUTION) RULES, 1983

The Government of Tamil Nadu vide G.O. Ms. No. 3, Environment Control, dated 27th September, 1983 has notified The Tamil Nadu Air (Prevention and Control of Pollution) Rules, 1983.

SALIENT FEATURES: RULES

Rule 6

Manner of declaration of air pollution control area:

Air Pollution control area declaring by the State Government shall specify the boundaries and the date on which such declaration shall come into force.

Rule 8

Fees to accompany application:

Every application for consent under the Section 21(2) of the Air (P&CP) Act shall be accompanied by the fees as given in the Table. [Given in Chapter 2.3.5]

Rule 14

Functions of the State Air Laboratory and fee for report:

The Board is entitled to collect fees for analysis of samples of air or emission

Rule 14-A

Fees for analysis report by Government Analyst:

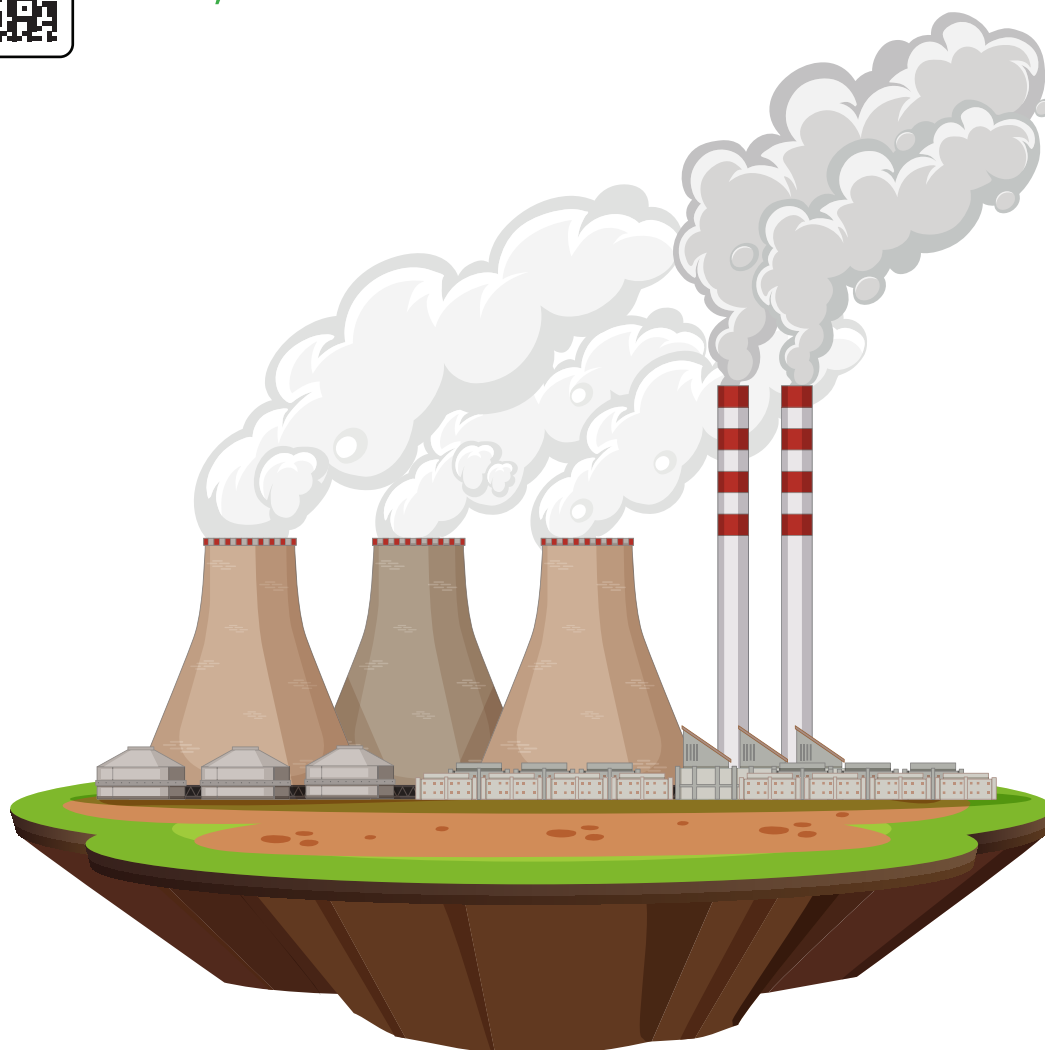
Sample Analysis fee shall be paid at the rates mentioned. [Given in Chapter 9.1]

2.2.3 SCHEDULES & FORMS

Form-I	Application for consent for emission / continuation of emission under Section 21 of the Air (P&CP) Act, 1981
Form-II	Notice of Inspection
Form-III	Notice of inspection to have sample analysed
Form-IV	Report by the Board Analyst
Form-V	Report by the Government Analyst
Form-VI	Form of the Register to be maintained in respect of consents issued under Section 21 of the Act.
Form-VII	Form of Appeal under Section 31 of the Air (P&CP) Act, 1981
Form-VIII	Form of Notice issue by the Appellate Authority to the Appellant



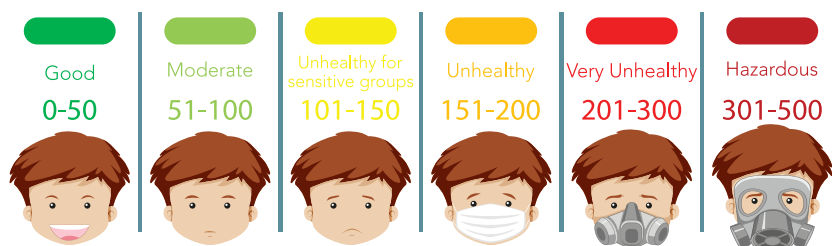
TAMIL NADU AIR (PREVENTION AND CONTROL OF POLLUTION) RULES, 1983



2.2.4 NATIONAL AMBIENT AIR QUALITY STANDARDS

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

CONCENTRATION IN AMBIENT AIR					
S.No	Pollutant	Time Weighted Average	Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)	Method of Measurements
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) - Chemiluminescence
		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 Chemiluminescence - 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	



2.2.4 NATIONAL AMBIENT AIR QUALITY STANDARDS

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

CONCENTRATION IN AMBIENT AIR					
S.No	Pollutant	Time Weighted Average	Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Government)	Method of Measurements
7.	Carbon Monoxide (CO), mg/m ³	8 hours**	2	2	• Non Dispersive Infra Red (NDIR) • Spectroscopy
		1 hour**	4	4	
8.	Ammonia (NH ₃), µg/m ³	Annual*	100	100	• Chemiluminescence • Indophenol blue method
		24 Hours**	400	400	
9.	Benzene (C ₆ H ₆), µg/m ³	Annual*	5	5	• Gas chromatograph based continuous analyzer • Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP) – particulate phase only, ng/m ³	Annual*	4	4	• Solvent extraction followed by HPLC /OC analysis
11.	Arsenic (As), ng/m ³	Annual*	6	6	• AAS/ICP method after 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

Note:

The notification on National Ambient Air Quality Standards 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.

2.2.5 CONSENT FEE APPLICABLE UNDER THE AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981

[G.O. Ms No.41, Environment and Forests (EC 1) Department, Dated 09.04.2018]

Sl. No	Gross Fixed Assets	Amount of Consent Fee (Rupees)		
		Red Category	Orange Category	Green Category
1	Upto Rs. 1 lakhs	400	300	200
2	Above Rs. 1 lakhs and upto Rs. 2 lakhs	700	600	400
3	Above Rs. 2 lakhs and upto Rs. 3 lakhs	900	700	600
4	Above Rs. 3 lakhs and upto Rs. 4 lakhs	1100	1000	800
5	Above Rs. 4 lakhs and upto Rs. 5 lakhs	1300	1100	1000
6	Above Rs. 5 lakhs and upto Rs. 6 lakhs	1700	1500	1200
7	Above Rs. 6 lakhs and upto Rs. 7 lakhs	2000	1700	1400
8	Above Rs. 7 lakhs and upto Rs. 8 lakhs	2200	2000	1600
9	Above Rs. 8 lakhs and upto 9 lakhs	2400	2100	1800
10	Above Rs. 9 lakhs and upto Rs. 10 lakhs	2600	2400	2000
11	Above Rs. 10 lakhs and upto Rs. 15 lakhs	3700	3100	2500
12	Above Rs. 15 lakhs and upto Rs. 20 lakhs	4400	3600	3000
13	Above Rs. 20 lakhs and upto Rs. 25 lakhs	5000	4200	3500
14	Above Rs. 25 lakhs and upto Rs. 35 lakhs	6000	4900	4100
15	Above Rs. 35 lakhs and upto Rs. 45 lakhs	7400	5600	5100
16	Above Rs. 45 lakhs and upto Rs. 55 lakhs	8900	7400	6100
17	Above Rs. 55 lakhs and upto Rs. 65 lakhs	10400	8400	7100
18	Above Rs. 65 lakhs and upto Rs. 75 lakhs	13100	10500	8100
19	Above Rs. 75 lakhs and upto Rs. 1 crore	16300	12600	10100
20	Above Rs. 1 crore and upto Rs. 5 crores	21800	17900	14200
21	Above Rs. 5 crores and upto Rs. 10 crores	Rs.105/- per lakh	Rs. 65/- per lakh	Rs. 42/- per lakh
22	Above Rs. 10 crores and upto Rs. 50 crores	Rs. 105000/- + Rs. 40/- per lakh	Rs. 65000/- + Rs. 30/- per lakh	Rs. 42000/- + Rs. 12/- per lakh
23	Above Rs. 50 crores and upto Rs. 100 crores	Rs. 265000/- + Rs. 23/- per lakh	Rs. 185000/- + Rs. 15/- per lakh	Rs. 90000/- + Rs. 12/- per lakh
24	Above Rs. 100 crores and upto Rs. 1000 crores	Rs. 380000/- + Rs. 5/- per lakh	Rs. 260000/- + Rs. 4/- per lakh	Rs. 150000/- + Rs. 3.00 per lakh
25	Above Rs. 1000 crores	Rs. 830000/- + Rs. 3/- per lakh (Max Rs. 31 lakhs)	Rs. 620000/- + Rs. 2.00- per lakh (Max Rs. 23 lakhs)	Rs. 420000/- + Rs. 1.00- per lakh (Max Rs. 8 lakhs)

CHAPTER 3

THE ENVIRONMENT (PROTECTION) ACT, 1986 – THE UMBRRLLA ACT



CHAPTER 3

THE ENVIRONMENT (PROTECTION) ACT, 1986 – THE UMBRELLA ACT

3.1 SALIENT FEATURES OF THE ENVIRONMENT (PROTECTION) ACT, 1986 (NO. 29 OF 1986)

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

SECTIONS	
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 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.-

SECTIONS

Section 8	<i>Persons handling hazardous substances to comply with procedural safeguards.</i>
Section 9	<i>Furnishing of information to authorities and agencies in certain cases.</i>
Section 10	<i>Powers of entry and inspection.</i>
Section 11	<i>Power to take sample and procedure to be followed in connection therewith:</i> (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 (Vide Rule 6 of the Environment (Protection) Rules, 1986.)
Section 13	<i>Government analysts:</i> Empowers the Central Government to appoint or recognise such persons as it thinks fit and having the prescribed qualifications to be Government analysts for the purpose of analysis of samples of air, water, soil or other substance.
Section 15	<i>Penalty for contravention of the provisions of the Act and the rules, orders and directions:</i> (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	<i>Offences by companies:</i> 1) Where any offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly.
Section 17	<i>Offences by government departments:</i> 1) Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly.
Section 18	<i>Protection of action taken in good faith:</i> No suit, prosecution or other legal proceeding shall lie against the Government or any officer or other employee of the Government or any authority constituted under this Act or any member, officer or other employee of such authority in respect of anything which is done or intended to be done in good faith in pursuance of this Act or the rules made or orders or directions issued thereunder.

SECTIONS

Section 19	Cognizance of offences: No court shall take cognizance of any offence under this Act except on a complaint made by: (a) the Central Government or any authority or officer authorised in this behalf by that Government, or (b) any person who has given notice of not less than sixty days, in the manner prescribed, of the alleged offence and of his intention to make a complaint, to the Central Government or the authority or officer authorised as aforesaid
Section 20	Information, reports or returns: The Central Government may, in relation to its function under this Act, from time to time, require any person, officer, State Government or other authority to furnish to it or any prescribed authority or officer any reports, returns, statistics, accounts and other information and such person, officer, State Government or other authority shall be bound to do so.
Section 21	Members, officers and employees of the authority constituted under section 3 to be public servants: All the members of the authority, constituted, if any, under section 3 and all officers and other employees of such authority when acting or purporting to act in pursuance of any provisions of this Act or the rules made or orders or directions issued thereunder shall be deemed to be public servants within the meaning of section 21 of the Indian Penal Code (45 of 1860)
Section 22	Bar of jurisdiction: No civil court shall have jurisdiction to entertain any suit or proceeding in respect of anything done, action taken or order or direction issued by the Central Government or any other authority or officer in pursuance of any power conferred by or in relation to its or his functions under this Act.
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: (1) Subject to the provisions of sub-section (2), the provisions of this Act and the rules or orders made therein shall have effect notwithstanding anything inconsistent therewith contained in any enactment other than this Act. (2) Where any act or omission constitutes an offence punishable under this Act and also under any other Act then the offender found guilty of such offence shall be liable to be punished under the other Act and not under this Act.
Section 25	Power to make rules: The Central Government may, by notification in the Official Gazette, make rules for carrying out the purposes of this Act.
Section 26	Rules made under this Act to be laid before parliament: Every rule made under this Act shall be laid, as soon as may be after it is made, before each House of Parliament.



3.2 SALIENT FEATURES OF THE ENVIRONMENT (PROTECTION) RULES, 1986

MoEF Notification S.O. 844(E) dated 19.11.1986) (Source: CPCB PCLS/02/2010 Sixth Edition)

Rule 3

Standards for emission or discharge or environmental pollutants.

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 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:

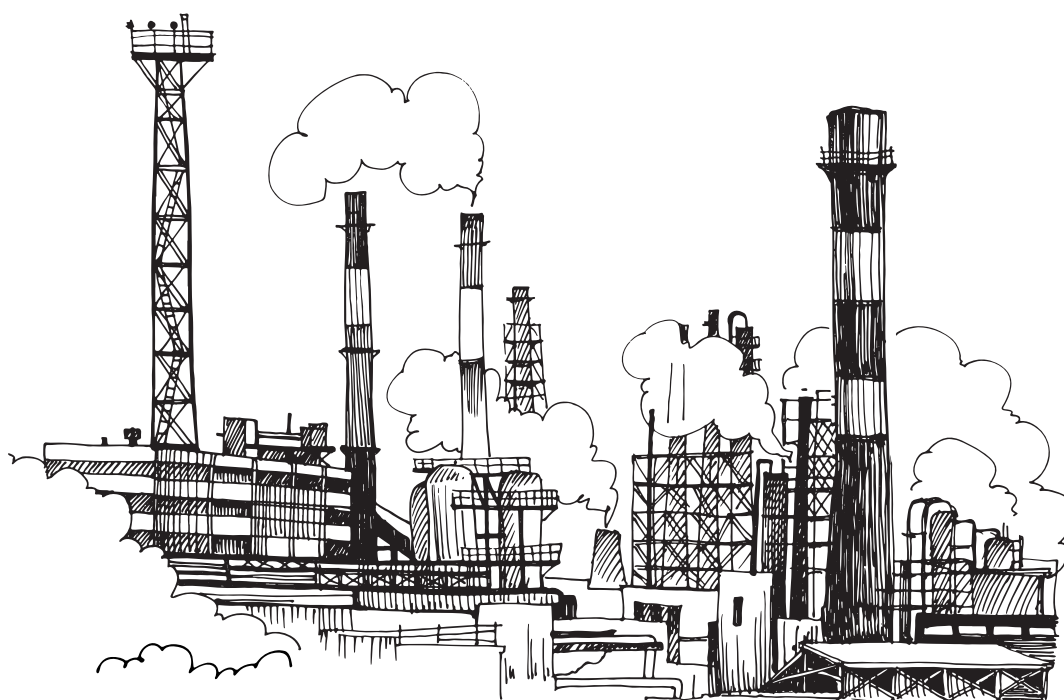
Every person carrying on an industry, operation or process requiring consent under section 25 of the Water (P&CP) Act, 1974 (6 of 1974) or under section 21 of the Air (P&CP) Act, 1981 (14 of 1981) or both or authorization under the Hazardous Waste (Management & Handling) Rules, 1989 issued under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an environmental statement for the financial year ending the 31st March in Form V [Given in Chapter 3.6] to the concerned State Pollution Control Board on or before the thirtieth day of September every year, beginning 1993.

Schedule-I	Standards for emission or discharge or environmental pollutants.
Schedule-II	Omitted by G.S.R. 801 (E) dated 31.12.1993.
Schedule-III	Ambient Air Quality Standards in respect of noise.
Schedule-IV	Standards for emission of smoke, vapour, etc., from motor vehicles.
Schedule-V	Furnishing of information to authorities and agencies in certain cases.
Schedule-VI	General standards for discharge of environmental pollutants .
Schedule-VII	National Ambient Air Quality Standards.

Form-I	Notice of inspection to have sample analysed.
Form-II	Memorandum to Government Analyst.
Form-III	Report by Government Analyst.
Form-IV	Form of Notice.
Form-V	Submission of environmental Statement



THE ENVIRONMENT (PROTECTION) RULES, 1986



Standards for Emission or Discharge of Environmental Pollutants from various Industries

Source: <https://cpcb.nic.in/effluent-emission/>

S No.	Contents
01.	Caustic Soda Industry
02.	Man-Made Fibres (Synthetic)
03.	Petroleum Oil Refinery
04.	Sugar Industry
05.	Thermal Power Plants (TPP Amendment)
06.	All Integrated textile units, units of Cotton / Woollen / Carpets / Polyester, Units having Printing / Dyeing / Blea manufacturing and Garment units
07.	Composite Woollen Mills (Omitted)
08.	Dye and Dye Intermediate Industry
09.	Electroplating Anodizing Industry (All related Standards Notified on 30th March, 2012)
10.	Cement Plants
11.	Stone Crushing Unit
12.	Coke Ovens (Omitted as per Gazette Notification 31st March, 2012)
13.	Synthetic Rubber
14.	Small Pulp and Paper Industry
15.	Fermentation Industry (Distilleries, Malties and Breweries)
16.	Leather Tanneries (Omitted)
17.	Fertilizer Industry
18.	Iron Ore Mining and Ore Processing (Omitted)
19.	Calcium Carbide
20.	Carbon Black
21.	Copper, Lead and Zinc Smelting
22.	Nitric Acid (Emission Oxides of Nitrogen)
23.	Sulphuric Acid Plant
24.	Iron & Steel (Integrated) (All related Standards Notified on 31st March, 2012)
25.	Thermal Power Plants
26.	Natural Rubber Industry (Omitted)
27.	Asbestos Manufacturing Units (Including all Processes Involving the use of Asbestos)
28.	Calor Alkali (Caustic Soda)
29.	Large Pulp and Paper
30.	Integrated Iron and Steel Plants (Omitted)
31.	Re-Heating (Reverberatory) Furnaces
32.	Foundries
33.	Thermal Power Plants
34.	Small Boilers
35.	Coffee Industry
36.	Aluminium Plants
37.	Stone Crushing Unit
38.	Petrochemicals (Basic & Intermediates)
39.	Hotel Industry
40.	Pesticide Industry
41.	Tannery (After Primary Treatment)
42.	Paint Industry
43.	Inorganic Chemical Industry (Waste Water Discharge)
44.	Bullion Refining (Waste Water Discharge)
45.	Dye & Dye Intermediate Industry (Waste Water Discharge) (Omitted)
46.	Noise Limits for Automobiles (Free Field) at One Meter indB(A) at the Manufacturing Stage to be achieved by the Year 1992.
47.	Domestic appliances and Construction Equipments at the manufacturing stage to be achieved by the year, 1993
48.	Glass Industry

S No.	Contents
49.	Lime Kiln
50.	Slaughter House, Meat & Sea Food Industry
51.	Food and Fruit Processing Industry
52.	Jute Processing Industry
53.	Large Pulp & Paper News Print/Rayon Grade Plants of [Capacity above 24000 MT Per Annum]
54.	Small Pulp and Paper (Paper Plant of Capacity upto 24000 MT /Annum
55.	Common Effluent Treatment Plants
56.	Dairy
57.	Tanneries
58.	Natural Rubber Processing Industry (Omitted)
59.	Bagasse-Fired Boilers
60.	Man-made Fibre Industry (Semi-Synthetic) (Omitted)
61.	Ceramic Industry
62.	Viscose Filament Yarn (Omitted)
63.	Starch Industry
64.	Beehive Hard Coke Oven
65.	Briquette Industry (Coal)
66.	Soft Coke Industry
67.	Edible Oil & Vanaspati Industry
68.	Organic Chemicals Manufacturing Industry
69.	Flour Mills, Grain processing, Paddy processing, pulse making or Grinding mills
70.	Boilers (Small)
71.	Pesticides Industry (Omitted)
72.	Oil Drilling and Gas Extraction Industry
73.	Pharmaceutical (Manufacturing and Formulation) Industry
74.	Brick Kiln
75.	Soda Ash Industry (Solvay Process)
76.	Emission Standard for SO From Cupola Furnace
77.	Specifications of Motor Gasoline for Emission Related Parameters (Omitted)
78.	Specification of Diesel Fuel for Emission related Parameters (Omitted)
79.	Coke Oven Plants (Omitted)
80.	Specifications of Two-Stroke Engine Oil (Omitted)
81.	Battery Manufacturing Industry
82.	Environmental Standards for Gas/Naptha-Based Thermal Power Plants
83.	Standards/Guidelines for Control of Noise Pollution From Stationary Diesel Generator (DG) Sets (Omitted)
84.	Temperature Limit for Discharge of Condenser Cooling Water from Thermal Power Plant
85.	Environmental Standards for Coal Washeries
86.	Water Quality Standards for Coastal Waters Marine Outfalls
87.	Emission Regulations for Rayon Industry (Omitted)
88.	Emission Standards for New Generator Sets (upto 19 KW run on Petrol and Kerosene with implementation Sch
89.	Noise Standards for Fire Crackers
90.	Standards for Coal Mines
91.	Noise Limit for Generator Sets run with Petrol or Kerosene (Omitted)
92.	(Omitted)
93.	Primary Water Quality Criteria for Bathing Water
94.	Noise Limit for Generator Sets run with Diesel
95.	Emission Limits for New Diesel Engines (upto 800 KW) for Generator Sets (Gensets) Applications
96.	Emission Standards for Diesel Engines (Engine Rating more than 0.8 MW (800 KW) for Power Plant, Generator and other Requirements
97.	Boilers using Agricultural Waste as Fuel
98.	Guidelines for Pollution Control in Ginning Mills
99.	Sponge Iron Plant (Rotary Kiln)
100.	Common Hazardous Waste Incinerator
101.	Incinerator for Pesticide Industry (Omitted)
102.	Refractory Industry
103.	Cashew Seed Processing Industry
104.	Plaster of Paris Industry
105.	Sewage treatment plant

S No.	Contents
106.	Industrial Boiler
107.	SO ₂ and NO _x Standards for Ceramic Industry
108.	SO ₂ and NO _x Standards for Foundry Industry (Furnaces Based on Fuel)
109.	SO ₂ and NO _x Standards for Glass Industry
110.	SO ₂ and NO _x Standards for Lime Kiln Industry
111.	SO ₂ and NO _x Standards for Reheating Furnace Industry
112.	Airport Noise
113.	Kerosene Standards
114.	Automobile Service Station, Bus Depot or Workshop



EMISSION STANDARDS PRESCRIBED UNDER
ENVIRONMENT (PROTECTION) RULES, 1986,

3.5 ENVIRONMENTAL STATEMENT

(Substituted by G.S.R. 386 (E) dated 22.4.1993 with effect from 1993)

Every person carrying on an industry, operation or process requiring consent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) or both or authorization under the Hazardous Wastes (Management and Handling) Rules, 1989 issued under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an environmental 2[statement] for the financial year ending the 31st March in Form V to the concerned State Pollution Control Board on or before the 3[thirtieth day of September] every year, beginning 1993.]

FORM V

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

Environmental statement for the financial year ending the 31st March

PART - A

- Name and Address of the owner/occupier of the industry operation or process
- Industry category Primary – (STC Code) Secondary – (SIC Code)
- Production capacity – Units
- Year of Establishment
- Date of last environmental statement submitted

PART - B

WATER AND RAW MATERIAL CONSUMPTION

i Water consumption m³/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)		
(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)

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 and Other Wastes (Management and Transboundary Movement) Rules, 2016)

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 (Kg.)	
	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 abatement of pollution prevention of pollution.

PART – I

Any other particulars for improving the quality of the environment.



CHAPTER 4

WASTE MANAGEMENT NOTIFICATIONS



CHAPTER 4

WASTE MANAGEMENT NOTIFICATIONS

4.1 THE BIO-MEDICAL WASTE MANAGEMENT RULES, 2016

[MoEF Notification G.S.R. 343(E).- Dated 28.3.2016, G.S.R 234 (E) dated 16.03.2018 & G.S.R 129 (E) dated 19.2.2019 – This notification has been brought out in supersession of the Biomedical Waste (Management and Handling) Rules, 1998]

SALIENT FEATURES: RULES

	RULES
Rule 2	Application: (l) 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 4	Duties of the Occupier: (b) 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; (c) 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) guidelines on Safe management of wastes from health care activities and WHO Blue Book, 2014 and then sent to the Common bio-medical waste treatment facility for final disposal. (j) 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; (n) 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; (p) In case of all bedded health care facilities (any number of beds), make available the annual report on its web-site within a period of two years from the date of publication of the Bio-Medical Waste Management (Amendment) Rules, 2018 ;

RULES

Rule 5

Duties of the operator of a common bio-medical waste treatment and disposal facility:

- (a) 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;
- (b) Ensure timely collection of bio-medical waste from the occupier as prescribed under these rules;
- (c) Establish bar coding and global positioning system for handling of bio- medical waste in accordance with the guidelines issued by the Central Pollution Control Board by 27th March 2019;
- (j) 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;
- (o) Common bio-medical waste treatment facility shall ensure collection of biomedical waste on holidays also;

Rule 10

Procedure for authorisation:

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 and the authorisation shall be one time for non-bedded HCFs'

Schedule

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

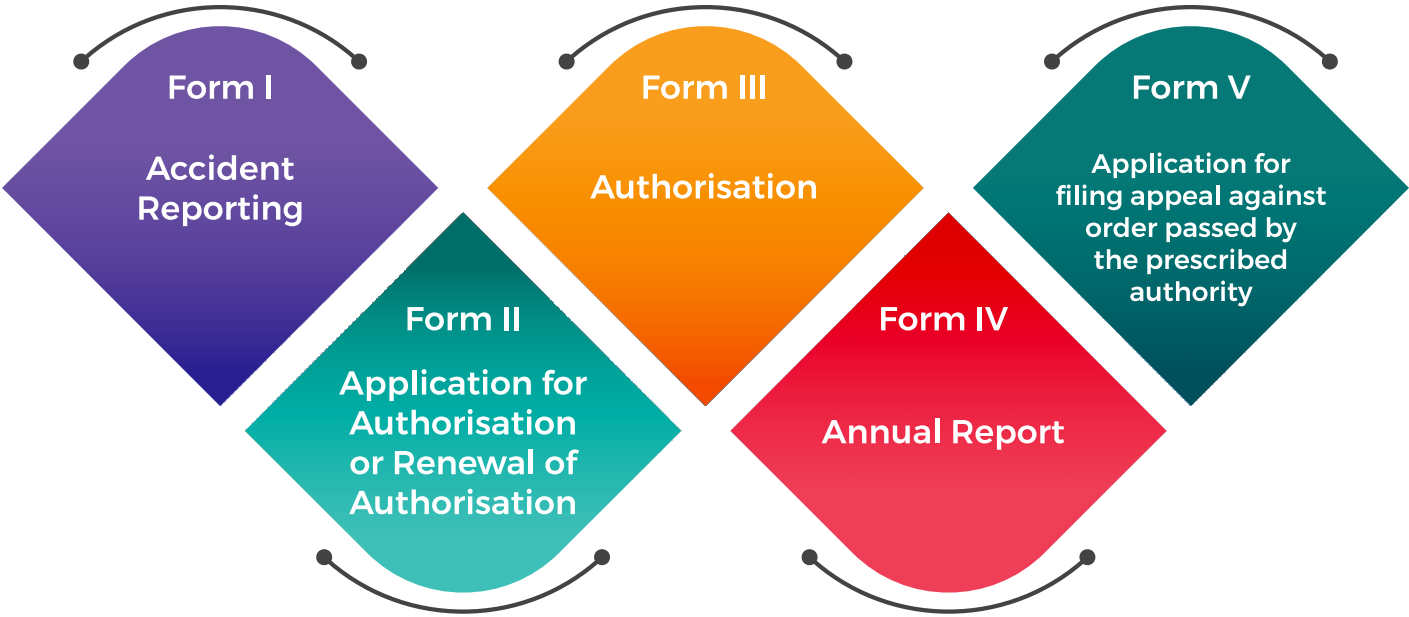
List of Prescribed Authorities and the Corresponding Duties

Schedule IV

Label for Bio-Medical Waste Containers or Bags



FORMS



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
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 /hydroclav- ing followed by shredding or mutilation or combina- tion of sterilization and shredding. Treated waste to be sent for energy recovery.

Category	Type of Waste	Type of Bag or Container to be used	Treatment and Disposal options
Yellow 	(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 drugs and items contaminated cytotoxic drugs to be returned back to the manufacturer or supplier for incineration at temperature >1200°C or to common bio-medical waste treatment facility or hazardous waste treatment, storage and disposal facility for incineration at >1200°C Or Encapsulation or Plasma Pyrolysis at >1200°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 waste water. The combined discharge shall conform to the discharge norms given in Schedule- III.
	(g) Discarded linen, mattresses, beddings contaminated with blood or body fluid, routine mask and gown. disinfecting activities etc.	Non-chlorinated yellow plastic bags or suitable packing material	Non-chlorinated chemical disinfection followed by incineration or Plasma 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 Plasma 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 or Microwave or Hydroclave safe plastic bags or containers.	Pre-treat to sterilize with non-chlorinated chemicals on site as per National AIDS Control Organisation or WHO guidelines thereafter for incineration as per Safe management of wastes from health care activities and WHO Blue Book, 2014.

Category	Type of Waste	Type of Bag or Container to be used	Treatment and Disposal options
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 coloured marking.	Disinfection (by soaking the washed glass waste after cleaning with detergent & Sodium Hypochlorite treatment) or through autoclaving or microwaving or hydroclaving and then sent for recycling.
	(b) Metallic Body Implants	Cardboard boxes with blue coloured marking.	

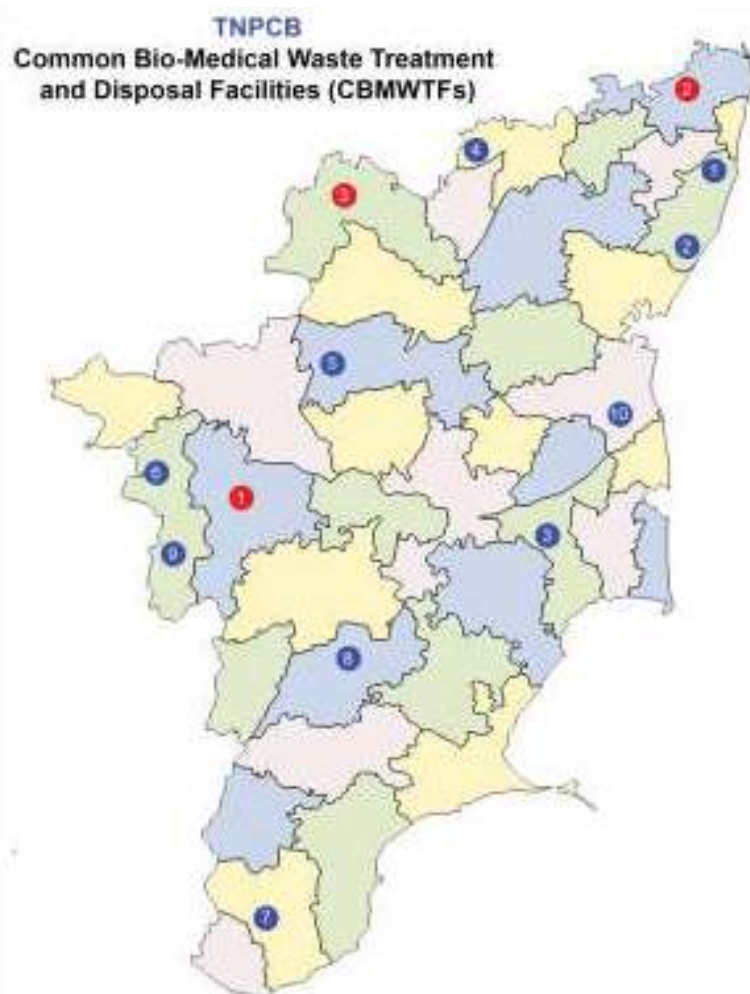
*Disposal by deep burial is permitted only in rural or remote areas where there is no access to common bio-medical waste treatment facility. This will be carried out with prior approval from the prescribed authority and as per the Standards specified in Schedule-II. The deep burial facility shall be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

**** Schedule I - Part -2 (12) – Disposal of Domestic Hazardous wastes:**

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.



TNPCB - COMMON BIO-MEDICAL WASTE TREATMENT AND DISPOSAL FACILITIES (CBMWTFs)



Under Operation	
Sl.No.	Name of the CBMWTFs
1.	M/s. G.J. Multilave (India) Pvt. Ltd., Chengalpattu District.
2.	M/s. Tamilnadu Waste Management Ltd., Chengalpattu District.
3.	M/s. Medicare Enviro Systems, Thanjavur District.
4.	M/s. Ken Bio Links Pvt Ltd., Vellore District.
5.	M/s. Ramky Energy and Environment, Salem District.
6.	M/s. Teknotherm Industries, Coimbatore District.
7.	M/s. Aseptic System Bio Medical Waste Management Co., Tirunelveli District.
8.	M/s. Ramky Energy and Environment, Virudhunagar District.
9.	M/s. Koval Biowaste Management (P) Ltd, Coimbatore District.
10.	M/s. Pondicherry Solid Waste Management Company Pvt Ltd, Cuddalore District.

Under Establishment	
Sl.No.	Name of the CBMWTFs
1.	M/s. City Meditech Industries Pvt. Ltd, Tiruppur District.
2.	M/s. Tamilnadu Waste Management Ltd., Thiruvallur District.
3.	M/s. Tamilnadu Waste Management Ltd., Krishnagiri District.



The Construction & Demolition Waste Management Rules, 2016 is notified by MoEF& CC, Government of India on 29th March 2016 under the Environment (Protection) Act, 1986 for proper management of construction and demolition wastes.

SALIENT FEATURES: RULES

	RULES
Rule 2	Application: The rules shall apply to every waste resulting from construction, re-modeling, repair and demolition of any civil structure of individual or organization or authority who generates construction and demolition waste such as building materials, debris, rubble.
Rule 3	Definitions: Some of the definitions given in the Construction & Demolition Waste Management Rules, 2016 are given below for ready reference "Construction and demolition waste" means the waste comprising of building materials, debris and rubble resulting from construction, re-modeling, repair and demolition of any civil structure; "Local authority" means an urban local authority with different nomenclature such as municipal corporation, municipality, nagarpalika, nagarnigam, nagarpanchayat, municipal council including notified area committee and not limited to or any other local authority constituted under the relevant statutes such as gram panchayat, where the management of construction and demolition waste is entrusted to such agency "Service provider" means authorities who provide services like water, sewerage, electricity, telephone, roads, drainage etc. often generate construction and demolition waste during their activities, which includes excavation, demolition and civil work;
Rule 4	Duties of the waste generator: (1) Every waste generator shall prima-facie be responsible for collection, segregation of concrete, soil and others and storage of construction and demolition waste generated, as directed or notified by the concerned local authority in consonance with these rules. (2) The generator shall ensure that other waste (such as solid waste) does not get mixed with this waste and is stored and disposed separately. (3) Waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month shall segregate the waste into four streams such as concrete, soil, steel, wood and plastics, bricks and mortar and shall submit waste management plan and get appropriate approvals from the local authority before starting construction or demolition or remodeling work and keep the concerned 3 authorities informed regarding the relevant activities from the planning stage to the implementation stage and this should be on project to project basis. (4) Every waste generator shall keep the construction and demolition waste within the premise or get the waste deposited at collection centre so made by the local body or handover it to the authorized processing facilities of construction and demolition waste; and ensure that there is no littering or deposition of construction and demolition waste so as to prevent obstruction to the traffic or the public or drains. (5) Every waste generator shall pay relevant charges for collection, transportation, processing and disposal as notified by the concerned authorities; Waste generators who generate more than 20 tons or more in one day or 300 tons per project in a month shall have to pay for the processing and disposal of construction and demolition waste generated by them, apart from the payment for storage, collection and transportation. The rate shall be fixed by the concerned local authority or any other authority designated by the State Government.

	RULES
Rule 5	<i>Duties of service provider and their contractors</i>
Rule 6	<i>Duties of local authority-</i>
Rule 7	<i>Criteria for storage, processing or recycling facilities for construction and demolition waste and application of construction and demolition waste and its products</i>
Rule 8	<i>Duties of State Pollution Control Board or Pollution Control Committee</i> 1. State Pollution Control Board or Pollution Control Committee shall monitor the implementation of these rules by the concerned local bodies and the competent authorities and the annual report shall be sent to the Central Pollution Control Board and the State Government or Union Territory or any other State level nodal agency identified by the State Government or Union Territory administration for generating State level comprehensive data. Such reports shall also contain the comments and suggestions of the State Pollution Control Board or Pollution Control Committee with respect to any comments or changes required 2. State Pollution Control Board or Pollution Control Committee shall grant authorization to construction and demolition waste processing facility in Form-III as specified under these rules after examining the application received in Form I; 3. State Pollution Control Board or Pollution Control Committee shall prepare annual report in Form IV with special emphasis on the implementation status of compliance of these rules and forward report to Central Pollution Control Board before the 31st July for each financial year
Rule 9	<i>Duties of State Government or Union Territory Administration</i>
Rule 10	<i>Duties of the Central Pollution Control Board T</i> 1. prepare operational guidelines related to environmental management of construction and demolition waste management; 2. analyze and collate the data received from the State Pollution Control Boards or Pollution Control Committee to review these rules from time to time; 3. coordinate with all the State Pollution Control Board and Pollution Control Committees for any matter related to development of environmental standards; 4. forward annual compliance report to Central Government before the 30th August for each financial year based on reports given by State Pollution Control Boards of Pollution Control Committee.
Rule 11	<i>Duties of Bureau of Indian Standards and Indian Roads Congress</i>
Rule 12	<i>Duties of the Central Government</i>
Rule 13	<i>Timeframe for implementation of the provisions of these Rules -</i>
Rule 14	<i>Accident reporting by the construction and demolition waste processing facilities</i>

Any violation of the provision of the construction and demolition Waste Management Rules, 2016 shall attract the penal provision of the Environment (Protection) Act, 1986.

SCHEDULES

	SCHEDULES
Schedule I	<i>Criteria for Site Selection for Storage and Processing or Recycling Facilities for construction and demolition Waste</i>
Schedule II	<i>Application of materials made from construction and demolition waste and its products.</i>
Schedule III	<i>Timeframe for Planning and Implementation</i>

FORMS

Form - I	<i>Application for obtaining authorization</i>
Form - II	<i>Format for Issue of Authorisation to the Operator</i>
Form - III	<i>Format of Annual Report to be submitted by Local Authority to the State Pollution Control Board</i>
Form - IV	<i>Format of Annual Report to be submitted by the State Pollution Control Board / Committees to the Central Pollution Control Board</i>
Form - V	<i>Accident reporting</i>



FOR DETAILED NOTIFICATION OF CONSTRUCTION
& DEMOLITIONS WASTE MANAGEMENT RULES, 2016

4.3 E-WASTE (MANAGEMENT) RULES, 2022

(MoEF&CC Notification G.S.R. 801(E) dated 02.11.2022) – This notification has been brought out in supersession of E-Waste (Management) Rules, 2016 as amended in 2018

SALIENT FEATURES: RULES

	RULES
Rule 2	Application: These rules shall apply to every manufacturer, producer refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, refurbishing, dismantling, recycling 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) Waste batteries as covered under the Battery Waste Management Rules, 2022 (b) Packaging plastics as covered under the Plastic Waste Management Rules, 2016 (c) Micro enterprise as defined in the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006) and (d) Radio-active wastes as covered under the provisions of the Atomic Energy Act, 1962 (33 of 1962) and rules made there under.
Rule 4	Registration: (1) The entities shall register on the portal in any of the following category, namely: - manufacturer - producer - refurbisher or - recycler (2) In case any entity falls in more than one categories under sub-rule (1), then the entity shall register under those categories separately. (3) No entity referred in sub-rule (1) shall carry out any business without registration. (4) The entities registered under sub-rule (1) shall not deal with any unregistered manufacturer, producer, recycler and refurbisher. (5) Where any registered entity furnishes false information or willfully conceals information for getting registration or return or report or information required to be provided or furnished under these rules or in case of any irregularity, the registration of such entity may be revoked by the Central Pollution Control Board for a period up to three-years after giving an opportunity to be heard and in addition, environmental compensation charges may also be levied as per rule 22 in such cases. (6) The Central Pollution Control Board may charge such registration fee and annual maintenance charges from the entities seeking registration under these rules based on capacity of e-waste generated or recycled or handled by them as laid down by the Central Pollution Control Board with the approval of the Steering Committee.
Rule 5	Responsibilities of the manufacturer.
Rule 6	Responsibilities of the producer.
Rule 7	Responsibilities of the refurbisher.
Rule 8	Responsibilities of bulk consumer.

RULES

Rule 9	Responsibilities of the recycler.
Rule 10	Responsibilities of State Government or Union territories.
Rule 11	Procedure for storage of e-waste.
Rule 12	Management of solar photo-voltaic modules or panels or cells.
Rule 13	Modalities of the extended producer responsibility Regime.
Rule 14	Extended producer responsibility Certificate Generation. 1. Recycling 2. Refurbishing
Rule 15	Transaction of extended producer responsibility certificates.
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	Appeal
Rule 22	Environmental Compensation: (1) The Central Pollution Control Board shall lay down guidelines for imposition and collection of environmental compensation on any entity in case of violation of any of the provision of these rules and guidelines issued hereunder and the said guidelines shall be in accordance with these rules and shall be approved by the Ministry of Environment, Forest and Climate Change. (2) The Central Pollution Control Board shall also lay down guidelines for imposition and collection of environmental compensation on the producer in case of non-fulfilment of obligations set out in these rules and transaction or use of false extended producer responsibility certificate and the said guidelines shall be in accordance with these rules and shall be approved by the Ministry of Environment, Forest and Climate Change. (3) The environmental compensation shall also be levied on unregistered producers, manufacturer, refurbisher, recyclers and any entity which aids or abets the violation of these rules. (4) (i) Payment of environmental compensation shall not absolve the producer from the extended producer responsibility as specified in these rules and the unfulfilled extended producer responsibility for a particular year shall be carried forward to the next year and so on and up to three years. (ii) In case, the shortfall of extended producer responsibility obligation is addressed after one year, 85 per cent of the environmental compensation levied shall be returned to the producer. (iii) In case, the shortfall of extended producer responsibility obligation is addressed after two year, 60 per cent of the environmental compensation levied shall be returned to the producer, and in case, the shortfall of extended producer responsibility obligation is addressed after three year, 30 per cent of the environmental compensation levied shall be returned to the producer, thereafter no environmental compensation shall be returned to the producer.

RULES

Rule 22	(5) False information resulting in over generation of extended producer responsibility certificates by recycler shall result in revocation of registration and imposition of environmental compensation which shall not be returnable and repeat offence, violation of these rules for three times or more shall also result in permanent revocation of registration over and above the environmental compensation charges. (6) (i) The funds collected under environmental compensation shall be kept in a separate Escrow account by the Central Pollution Control Board and the funds collected shall be utilised in collection and recycling or end of life disposal of uncollected, historical, orphaned e-waste and non-recycled or non-end of life disposal of e-waste on which the environment compensation is levied, research and development, incentivising recyclers, financial assistance to local bodies for managing waste management projects and on other heads as decided by the committee. (ii) The modalities and heads for utilisation of the funds shall be decided by the Steering Committee with the approval of the Ministry of Environment, Forest and Climate Change.
Rule 23	Prosecution.
Rule 24	Verification and Audit.
Rule 25	Steering Committee.

SCHEDULES

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

Year wise E-Waste Recycling Target (by weight)

SCHEDULE - IV

Extended Producer Responsibility targets for producers, who have started sales operations recently, i.e. number of years of sales operations is less than average life of their products mentioned in the guidelines issued by the Central Pollution Control Board from time to time.

SCHEDULE - V

List of Authorities& Corresponding Duties



FOR DETAILED NOTIFICATION OF
THE E-WASTE (MANAGEMENT) RULES, 2022

4.4.1 SALIENT FEATURES OF HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016

RULES

Rule 2	Application: These rules apply to management of hazardous & other wastes and shall not apply to • Waste water and exhaust gases • Wastes arising out of the operation from ships beyond 5 kms of the relevant baseline • Radio-active wastes • Bio-medical wastes • Wastes covered under Municipal Solid Wastes (Management and Handling), Rules, 2000							
Rule 4	Responsibilities of the occupier for management of hazardous and other waste: • Occupier is responsible for safe and environmentally sound management of hazardous & other waste. • Occupier shall follow Prevention, Minimization, Reuse, Recycling, Recovery, Utilisation including Co-processing, safe disposal. • Occupier shall send/sell the hazardous or other waste to an Authorised actual user/shall disposed in authorized disposal facility.							
Rule 5	Responsibilities of State Government : • Department of Industry in the State authorised shall ensure earmarking or allocation of industrial space/shed for re-cycling/pre-processing and other utilization in the existing and upcoming industrial park, estate and industrial clusters.							
Rule 6	Grant of authorisation for managing hazardous and other waste: • The occupier of the facility who is engaged in handling generation, collection, storage, packaging, transportation, use, treatment, processing, recycling, recovery, preprocessing, Coprocessing, utilisation, offering for sale, transfer or disposal of the hazardous and other wastes shall apply in Form 1 to SPCB and obtain an authorisation. • Shall submit annual return in Form 4 on or before 30th of June.							
Rule 8	Storage of hazardous and other waste: • Occupiers of facilities may store the hazardous and other waste for not exceeding 90 days and maintain record of sale, transfer, storage, recycling, recovery, utilization, pre-processing, co-processing. • SPCB may extend the period of 90 days in the following cases, <table><tr><td>Small generators (up to ten tonnes per annum</td><td>Up to 180 days of their annual capacity</td></tr><tr><td>Actual users & Disposal facility operators</td><td>Up to 180 days of their annual capacity</td></tr><tr><td>Recyclers/Utilizers/Pre-processors/ Co-processors</td><td>Up to 180 days of their annual capacity</td></tr></table>		Small generators (up to ten tonnes per annum	Up to 180 days of their annual capacity	Actual users & Disposal facility operators	Up to 180 days of their annual capacity	Recyclers/Utilizers/Pre-processors/ Co-processors	Up to 180 days of their annual capacity
Small generators (up to ten tonnes per annum	Up to 180 days of their annual capacity							
Actual users & Disposal facility operators	Up to 180 days of their annual capacity							
Recyclers/Utilizers/Pre-processors/ Co-processors	Up to 180 days of their annual capacity							
Rule 9	Utilization of hazardous and other wastes: • Utilization of hazardous and other wastes, as a resource after pre-processing either for co-processing or any other use including within the premises shall be carried out only after obtaining authorisation from the SPCB on the basis of Standard Operating Procedure (SOP) or guidelines of CPCB.							

RULES

Strategy for Import and Export of hazardous waste:

Permitted	Not permitted
Import of hazardous & other wastes from other countries for recycling / recovery / reuse / utilisation/ co-processing.	Import of hazardous & other wastes from other countries for disposal.
Import of hazardous waste in Part A & Part B of Schedule III shall require permission of the MoEF & CC.	Import of hazardous and & other wastes specified in Schedule VI.
Import of other wastes in Part D of Schedule III will be allowed as per Rule 13.	Import and export of hazardous & other waste outlined in Part C of Schedule III (shall require prior written permission from MoEF & CC).
Export of hazardous & other wastes from India listed in Part A and Part B of Schedule III & VI with permission from MoEF.	

Rule 12

Procedure for import of hazardous and other waste:

Actual user intending to import shall follow the following.

S. No	Schedule	Form	Procedure
1.	Part A and Part B of Schedule III	Form 5	Shall obtain Authorization from SPCB Shall apply in Form 5 to MoEF & CC with documents listed therein Prior informed consent of the exporting country in respect of Part A of Sc.III
2.	Part D of Schedule III	Form 6	Shall obtain Authorization from SPCB Furnish the required documents to Customs authorities
3.	Part D of Schedule III	Form 7	Traders on behalf of the actual users, shall obtain One Time Authorization in Form 7 and copy shall be appended to Form 6

Rule 13

Treatment, storage and disposal facility for hazardous and other waste:

- TSDF shall design and set up the treatment, storage and disposal facility as per CPCB guidelines.
- TSDF shall be responsible for safe and environmentally sound operation of the facility and its closure and post closure phase as per the standard operating procedure issued by CPCB.

Rule 16

Transportation of Hazardous and Other waste:

- Transport shall be in accordance with rules under Motor Vehicles Act, 1988.
- Transporter shall carry TERM card Form -9.
- Shall label the containers as per Form-8.

Rule 18

Interstate movement

For final disposal - 'No Objection Certificate' from SPCB shall be obtained.

For recycling or utilization including co-processing - Intimation to SPCB.

RULES

Rule 19

Manifest system (Movement Document) for hazardous and other waste to be used within the country - Sender of the waste shall prepare seven copies of Manifest in Form -10:

Copy 1

To be forwarded by the sender to the State Pollution Control Board after signing all the seven copies

Copy 2

To be retained by the sender after taking signature on it from the transporter and the rest of the five signed copies to be carried by the transporter

Copy 3

To be retained by the receiver (actual user or treatment storage and disposal facility operator) after receiving the waste and the remaining four copies are to be duly signed by the receiver

Copy 4

To be handed over to the transporter by the receiver after accepting the waste

Copy 5

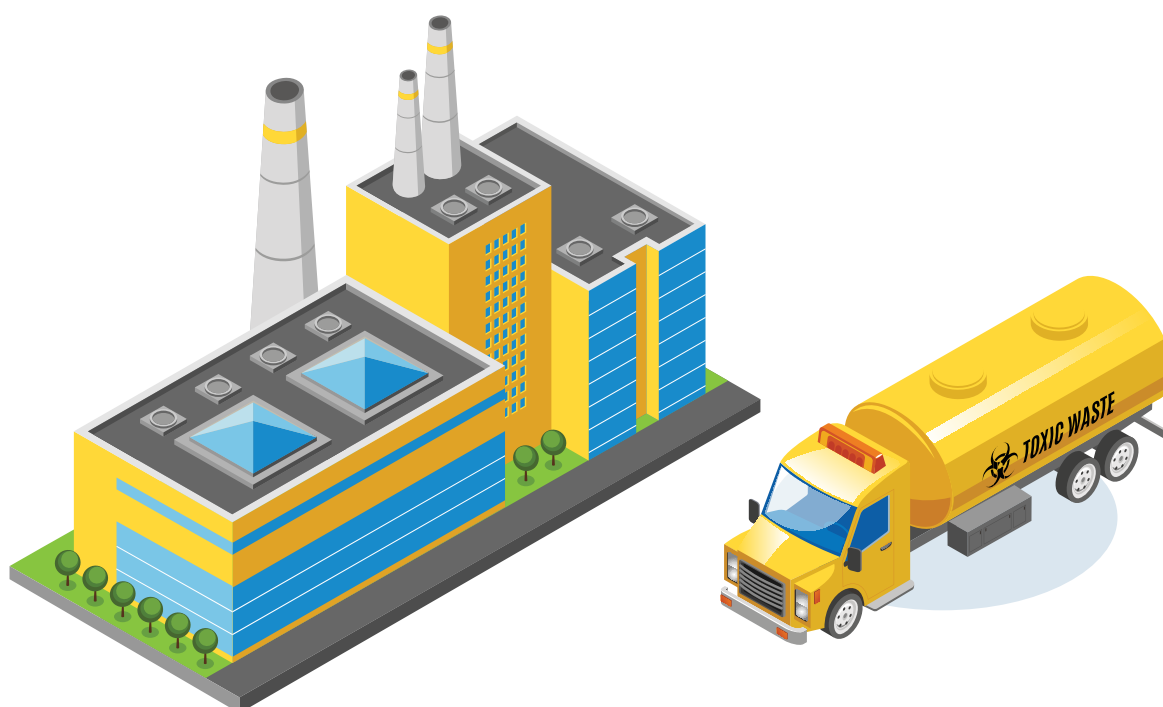
To be sent by the receiver to the State Pollution Control Board

Copy 6

To be sent by the receiver to the sender

Copy 7

To be sent by the receiver to the State Pollution Control Board of the sender in case the sender is in another State



4.4.2 SCHEDULES AND FORMS

SCHEDULE-I

List of processes generating hazardous waste

SCHEDULE-II

List of waste constituents with concentration limits

SCHEDULE - III

Part A — List of hazardous waste 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 of recycling

Part B - Specifications 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

SCHEDULE - XI

Extended producer responsibility for waste tyre



FOR DETAILED NOTIFICATION OF HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES, 2016

4.4.3 PROCEDURE FOR OBTAINING AUTHORIZATION BY INDUSTRIES GENERATING HAZARDOUS WASTE:

INDUSTRIES GENERATING HAZARDOUS WASTE

- Generator of hazardous waste shall identify the type & characteristics of hazardous wastes as per the Schedule I.
- Generator shall provide secured storage of hazardous waste as per CPCB guidelines.
- Generator shall be responsible for sending the hazardous waste to recycler/utilizer / TSDF as per the characteristics of hazardous waste and guidelines of CPCB.
- Generator shall provide display board at the entrance as per CPCB guidelines.
- Generator shall maintain Form – 3 and submit Form - 4 with the following required documents
- Generator shall file application under Form I through OCMMS portal to TNPCB and obtain Authorization.
- Enclose the following documents:
 1. Copy of valid consent to operate order issued to the industry
 2. Process flow sheet along with the details of input and output (raw material, chemicals, products, by products, wastes emissions, wastewater etc)
 3. Details of on-site storage facility for hazardous waste generated during the process
 4. Details of environmental safeguards regarding safety & fire
 5. Emergency Response Plan for dealing with emergency situations as per CPCB guidelines.
 6. Provide undertaking or declaration to comply with all provisions including the scope of submitting Bank Guarantee in the event of spillage, leakage or fire while handling the hazardous & other waste
 7. Compliance of previous authorization issued (not applicable for new user)
 8. Annual returns in Form-IV for the last 5 years (not applicable for new user)
 9. Photograph showing the display boards
 10. Valid Agreement made with the recycler/utilizer/pre-processor/co-processor/disposal facility for all the Hazardous waste generated due to its activity
 11. Copy of Valid Consent and Hazardous Waste Authorization + Passbook issued to recycler / utilizer / pre-processor/ co-processor/ disposal facility with whom agreement is made.
 12. In case of captive utilisation , Generator shall follow the Standard Operating Procedure of issued by CPCB

4.4.4 PROCEDURE FOR OBTAINING AUTHORIZATION WITH PASSBOOK BY ACTUAL USERS /RECYCLERS/UTILIZERS/PRE-PROCESSORS/COPROCESSORS:

RECYCLERS/UTILIZERS/PRE-PROCESSOR/COPROCESSOR

- The actual user/recycler/utilizer/pre-processor/co-processor shall have adequate facilities for collection, storage, handling, transportation, recycling, utilization, pre-processing/co-processing, of Hazardous & other waste as per the SOP/Guidelines/Minimal requisite facilities issued by CPCB from time to time.
- The actual user/recycler/utilizer/pre-processor/co-processor for reception of hazardous and other waste shall apply for passbook along with authorization (Authorization for Hazardous waste generated from their process and Passbook for Hazardous & other waste procurement /reception).
- The hazardous waste listed in Schedule IV can only be recycled and the Processes to be adopted for reuse/recycle/recovery of hazardous waste shall be as per the Environmentally Sound Technologies issued by CPCB only.
- Utilization of hazardous and other wastes, as a resource after pre-processing either for co-processing or any other use including within the premises shall be carried out as per the Standard Operating Procedure (SOP) or guidelines of CPCB. (CPCB has issued 81 SOPs for utilization of hazardous waste as on date)
- The Pre-processing facility for hazardous waste shall comply with the guidelines of Guidelines for Pre-Processing and Co-Processing of Hazardous and Other Wastes in Cement Plant as per H&OW(M & TBM) Rules, 2016.
- File application under Form I of HOWM rules, 2016 online through in OCMMS portal.

Enclose the following documents:

1. Copy of valid consent to operate order issued to the actual user/facility.
2. Certificate of registration issued by District Industry or any other Government agencies authorized in this regard.
3. Proof of installed capacity of plant and machinery as per the registration issued by District Industry or any other Government agencies authorized in this regard.
4. Provide details of secured storage of wastes including storage capacity.
5. Process flow sheet along with the details of input and output, equipment installed.
6. Provide details of end users of products or by products.
7. Details of Air Pollution Control System (APCS) installed in the unit along with the diagram.
8. Details of Effluent Treatment Plant (ETP) with diagram including mode of disposal of waste.
9. Details of on-site storage facility of hazardous waste generated during the process.
10. Details of environmental safeguards regarding safety & fire.
11. Compliance of CPCB guidelines/SOP/Minimal requisite facility guidelines issued by CPCB.
12. Compliance of previous authorization issued (not applicable for new user).
13. Annual returns in Form-4 for the last 5 years (not applicable for new user).
14. Passbook for the last 5 years (not applicable for new user).
15. Photograph showing the display boards.
16. Agreement with disposal facility for Hazardous waste generated due to recycling/utilization/ Co processing.
17. Details of occupational health and safety measures.

4.4.5 PROCEDURE FOR OBTAINING ONE TIME AUTHORIZATION BY TRADERS TO IMPORT OTHER WASTES LISTED ON PART – D OF SCHEDULE III:

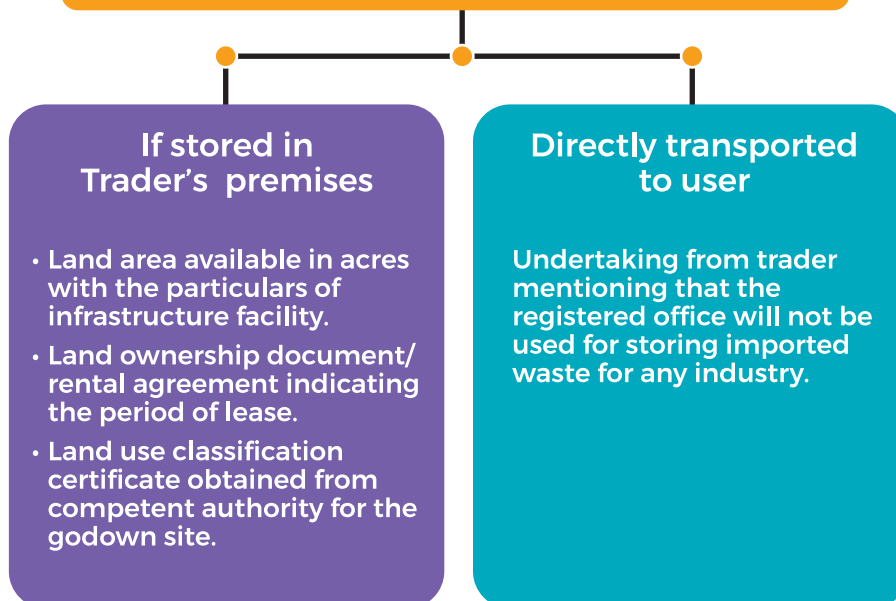
TRADERS

TRADERS SHALL FILE APPLICATION FOR IMPORT OF OTHER WASTES LISTED IN PART D OF 5C III IN FORM 7 ENCLOSING THE FOLLOWING REQUIRED DOCUMENTS



1. Copy of Importer - Exporter (IEC) code
2. Copy of GST Certificate
3. An Undertaking in Rs. 20 non-judicial stamp paper made with actual user
4. Valid Consent order and Valid HWA of the actual user issued by TNPCB
5. Annual return as per FORM 4 shall be filed by June 30th for the period ensuring 31st March of the year (not applicable for new trader)
6. Undertaking in Rs.100 Non-Judicial stamp paper for compliance of all the provisions of HOWM Rules, 2016.

Mode of storage of imported waste



4.5.1 SALIENT FEATURES OF THE PLASTIC WASTE MANAGEMENT RULES, 2016 AS AMENDED IN 2018, 2021 & 2022

	RULES
Rule 4	Conditions: - Carry bag made of virgin or recycled plastic, shall not be less than seventy five microns in thickness with effect from the 30th September, 2021 and one hundred and twenty (120) microns in thickness with effect from the 31st December, 2022; [As per G.O. Ms No. 84 of Environment & Forest Department dated 26.05.2018 plastic carry bag irrespective of thickness is banned by the Government of Tamil Nadu] - 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 - Sachets using plastic material shall not be used for storing, packing or selling gutkha, tobacco and pan masala - Provision of thickness shall not be applicable to carry bags and commodities made up of compostable plastic and biodegradable plastics. The manufacturers or seller of compostable plastic and biodegradable plastics carry bags or commodities or both shall obtain a certificate from the Central Pollution Control Board before marketing or selling. (2) The manufacture, import, stocking, distribution, sale and use of following single-use plastic, including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the 1st July, 2022: (a) ear buds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene [Thermocol] for decoration; (b) Plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100 micron, stirrers.
Rule 5	Plastic Waste Management: (a) Plastic waste, which can be recycled, shall be channelized to registered plastic waste recycler. (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 (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. (c) The inert from recycling or processing facilities of plastic waste shall be disposed off in compliance with the Solid Waste Management Rules, 2016 or as amended from time to time.
Rule 6&7	Responsibility of local body & Gram Panchayat: (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. (3) The local body to frame bye-laws incorporating the provisions of these rules.

RULES

Rule 8

Responsibility of waste generator:

- (1) The waste generator shall 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 and handover segregated wastes to authorized waste processing or disposal facilities.
- (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.

Rule 9

Responsibility of producers, Importers and Brand Owners:

The Producers, Importers and Brand Owners shall fulfil Extended Producers Responsibility for Plastic Packaging as per guidelines specified in Schedule -II.

Producers, Importers, Brand owners will have to collect at least:

- 35% of the target in 2021-22.
- 70% of the target by 2022-23.
- 100% of the target by 2024.

Obligations for recycling:

Plastic Packaging Category	2023-24	2024-25	2025-26	2026-27 and and onwards
Category I Rigid Plastic	50	60	70	80
Category II Flexible Plastic	30	40	50	60
Category III Multilayer Plastic	30	40	50	60

Obligations for use of recycled plastic content:

Plastic Packaging Category	2023-24	2024-25	2025-26	2026-27 and and onwards
Category I Rigid Plastic	30	40	50	60
Category II Flexible Plastic	20	20	30	30
Category III Multilayer Plastic	5	5	10	10

Rule 10

Responsibility of waste generator:

- (1) Determination of the degree of degradability and degree of disintegration of plastic material shall be as per the protocols of the Indian Standards listed in Schedule I.

RULES

(2) The compostable plastic materials shall conform to the IS / ISO 17088:2021, as amended from time to time.

(3) The biodegradable plastics shall conform to the standard notified by the Bureau of Indian Standards IS 17899 :2022 and certified by the Central Pollution Control Board.

Marking or labelling:

(1) Each plastic carry bag, plastic packaging and multilayered packaging shall have the following information printed in English namely,-

(a) name, registration number of the producer or brand owner and thickness in case of carry bag and plastic packaging :

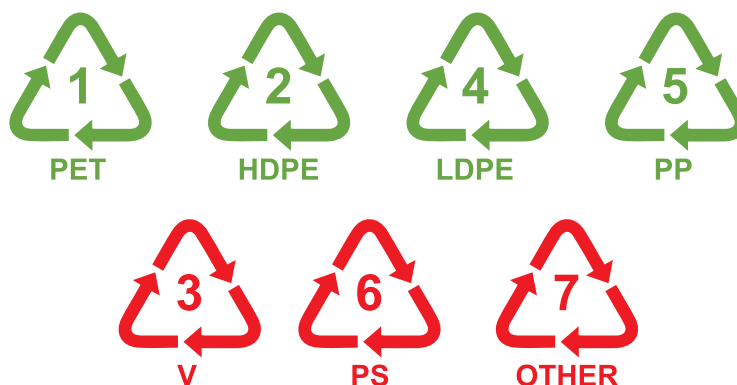
b. With effect from the 1st January, 2023, name and registration number of the producer or brand owner in case of multi-layered packaging excluding multi-layered packaging used for imported goods; and

c. name and certificate number of producer in case of carry bags made from compostable plastic

d. the importer or producer or brand owner of imported carry bags or multi-layered packaging or plastic packaging, alone or along with the products shall adhere to clause (a) and (b).

Rule 11

(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;



Each carry bag made from compostable plastics shall bear a label "compostable" and shall conform to the Indian Standard: IS or ISO 17088:2008 titled as Specifications for "Compostable Plastics".

Prescribed authority:

(1) The Central Pollution Control Board or State Pollution Control Board 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 & Gram Panchayat shall be the authority for enforcement of the provisions of these rules relating to waste management by waste generator, restriction or prohibition on use of plastic carry bags, plastic sheets or like, covers made of plastic sheets and multilayered packaging.

(4) The authorities referred to 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 12

	RULES		
Rule 13	Registration of producer, recyclers and manufacturer:		
	2. Every producer or importer or brand-owner shall, for the purpose of registration or for renewal of registration, make an application as per the guidelines specified in Schedule -II, in Form-I to		
	• “The concerned State Pollution Control Board or Pollution Control Committee of the Union territory, if operating one or two States or Union Territories”; or		
	• “The Central Pollution Control Board, if operating in more than two States or Union Territories”.		
	3. Every person recycling or processing waste shall make an application to the State Pollution Control Board for grant of registration or renewal of registration for the recycling unit, in Form II.		
Rule 14	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 concerned, for the grant of registration or for the renewal of registration, in Form III.		
	• Requirements for the issue or renew of registration		
	o Valid Consent under Water (P&CP) Act,1974 & Air (P&CP) Act, 1981		
	o Certificate of Registration issued by the District Industries Centre		
	• Registration issued valid for one year and renewal of registration valid for three years		
Rule 15	Deleted, as amended 2018		
Rule 16	State Level Monitoring Committee		
Rule 17	Annual reports:		
	Stakeholders for submission of Annual Report	Form	Submission date
	Plastic Waste Recycler	Form-IV	30th April, of every year
	Local body	Form-V	30th June, of every year
	State Pollution Control Board	Form-VI	31th July, of every year
Rule 18	Imposition of Environmental Compensation		

4.5.2 SCHEDULES AND FORMS

Schedules	
Schedule I	Protocols for compostable and biodegradable plastic materials [See rule 10]
Schedule II	Guidelines on Extended Producer Responsibility for Plastic Packaging [See Rule 9 (1)]

Form-I

Application for Registration for Producers or Brand Owners or Importers

Form-II

Application Form For Registration Of Units Engaged In Processing or Recycling of Plastic Waste

Form-III

Application for Registration for Manufacturers of Plastic Raw Materials

Form-IV

Format of Annual Report by Operator of plastic waste processing or recycling Facility to the Local Body

Form-V

Format for Annual Report on Plastic Waste Management to be submitted by the Local Body

Form-VI

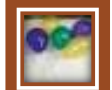
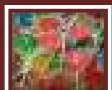
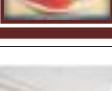
List of documents for verification by Customs for import of other wastes specified in Part D of Schedule III



**FOR DETAILED NOTIFICATION OF
THE PLASTIC WASTE MANAGEMENT
RULES, 2016 AS AMENDED**



4.5.3 BANNED SUPS BY GOVT OF TAMIL NADU & MOEF&CC

S.No	Banned SUPs by Govt of Tamil Nadu & MoEF&CC		S.No	Banned SUPs by Govt of Tamil Nadu & MoEF&CC	
1	Plastic sheet / cling film used for food wrapping		15	ear buds with plastic sticks	
2	Plastic sheet used for spreading on dining table		16	plastic sticks for balloons	
3	Plastic Thermocol plates		17	candy with plastic sticks	
4	Plastic coated paper plates		18	ice-cream with plastic sticks	
5	Plastic coated paper cups		19	polystyrene [Thermocol] for decoration	
6	Plastic tea cups		20	cutlery such as plastic forks	
7	Plastic tumbler		21	Plastic spoons	
8	Thermocol cups		22	Plastic knives	
9	Plastic carry bags of all size & thickness		23	wrapping or packing films around sweet boxes	
10	Plastic coated carry bags		24	wrapping or packing films around invitation cards	
11	Non-woven Carry Bags of all size & thickness		25	wrapping or packing films around cigarette packets	
12	Water pouches / packets		26	plastic or PVC banners less than 100 micron	
13	Plastic straw		27	Plastic stirrers	
14	Plastic flags		28	Plastic trays	

The Ministry of Environment Forest and Climate Change, Govt. of India, on 8th April 2016 has notified the Solid Waste Management Rules, 2016 under sections 3, 6 and 25 of the Environment (Protection) Act, 1986 in supersession of the Municipal Solid Waste (Management and Handling) Rules, 2000.

4.6.1 SALIENT FEATURES OF THE SOLID WASTE MANAGEMENT RULES, 2016

	RULES
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: Some of the definition given in the Solid Waste Management Rules, 2016 are given below for reference (Definition No. 3) "authorization" means the permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be, to the operator of a facility or urban local authority, or any other agency responsible for processing and disposal of solid waste; (Definition No. 7) "buffer zone" means zone of no development to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity. This will be maintained within total Land area allotted for the solid waste processing and disposal facility. (Definition No. 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. (Definition No. 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

	RULES
Rule 4	<i>Duties of waste generators:</i> • Segregate bio-degradable, non-biodegradable and domestic hazardous wastes – handing over to waste collectors. • Securely wrap sanitary waste like diapers, sanitary pads, etc. and place in the bin meant for dry / non-biodegradable waste. • Horticulture & Garden waste – store separately and dispose accordingly. • Burning & littering of solid waste not to be undertaken • Payment of user fee for solid waste management as per bye-laws • All Resident Welfare and Market Associations, Gated communities and institution with an area > 5,000 sq m and all hotels & restaurant shall ensure segregation of waste at source by the generators, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorized waste pickers or the authorized recyclers. • Bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises. • Residual waste shall be given to the waste collectors or agency • Every street vendor shall keep suitable containers for storage of waste generated during the course of his activity • The developers of Special Economic Zone, Industrial Estate, Industrial park to earmark at least 5% of the total area of the plot or minimum 5 plots/ sheds for recovery and recycling facility. 
Rule 5	<i>Duties of Ministry of Environment, Forest and Climate Change:</i> • MoEF &CC shall be responsible for overall monitoring the implementation of these rules in the country, • MoEF &CC shall constitute a Central Monitoring Committee under the Chairmanship of Secretary, Ministry of Environment, Forest, & Climate Change
Rule 6	<i>Duties of Ministry of Urban Development</i>
Rule 7	<i>Duties of Department of Fertilisers, Ministry of Chemicals and Fertilisers.</i>
Rule 8	<i>Duties of Ministry of Agriculture, Government of India</i>
Rule 9	<i>Duties of the Ministry of Power</i>
Rule 10	<i>Duties of Ministry of New and Renewable Energy Sources</i>

	RULES
Rule 11	<i>Duties of the Secretary-in-charge, Urban Development in the States and Union territories</i>
Rule 12	<i>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.</i> a. 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; b. 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	<i>Duties of the Secretary-in-charge of Village Panchayats or Rural Development Department in the State and Union territory</i>
Rule 14	<i>Duties of Central Pollution Control Board</i> • Shall co-ordinate with the SPCBs for implementation of these rules • Formulate / review the standards for ground water, ambient air, noise pollution, leachate in respect of all solid waste processing and disposal facilities • Review the proposals of state pollution control boards on use of any new technologies for processing, recycling and treatment of solid waste and prescribe performance standards, emission norms for the same within 6 months. • Monitor through State Pollution Control Boards or Pollution Control Committees the implementation of these rules by local bodies; • Prepare an Annual Report on implementation of these rules on the basis of reports received from SPCBs • Publish guidelines for maintaining buffer zone restricting any residential, commercial or any other construction activity from the outer boundary of the waste processing and disposal facilities for different sizes of facilities handling more than five tons per day of solid waste. • Publish guidelines, from time to time, on environmental aspects of processing and disposal of solid waste to enable local bodies to comply with the provisions of these rules; and • Provide guidance to States on inter-state movement of waste
Rule 15	<i>Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations.</i> • Shall prepare a solid waste management plan as per State Policy within six months • Arrange for door to door collection of segregated solid waste; • Integrate rag pickers / informal waste collectors in solid waste management • Frame bye-laws incorporating the provisions of these rules within one year; • Prescribe user fee • Direct waste generators not to litter and to segregate the waste at source and hand over the segregated waste to authorized waste pickers the waste collector authorized by the local authority • Setup material recovery facilities or secondary storage facilities and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste. • Establish waste deposition centre/s for domestic hazardous waste and ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the state Pollution control Board

RULES

Rule 15

Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations.

- Shall prepare a solid waste management plan as per State Policy within six months
- Arrange for door to door collection of segregated solid waste;
- Integrate rag pickers / informal waste collectors in solid waste management
- Frame bye-laws incorporating the provisions of these rules within one year;
- Prescribe user fee
- Direct waste generators not to litter and to segregate the waste at source and hand over the segregated waste to authorized waste pickers the waste collector authorized by the local authority
- Setup material recovery facilities or secondary storage facilities and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste.
- Establish waste deposition centre/s for domestic hazardous waste and ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the state Pollution control Board
- Direct street sweepers not to burn tree leaves collected from street sweeping and store them separately and handover to the waste collectors or agency;
- provide training on solid waste management to waste-pickers and waste collectors
- promote setting up of decentralized compost plant or bio-methanation plant at suitable locations in the markets or in the vicinity of markets ensuring hygienic conditions;
- collect separately waste from sweeping of streets, lanes and by-lanes daily, or on alternate days or twice a week
- Transport segregated bio-degradable waste to the processing facilities like compost plant, bio-methanation plant or any such facility. Preference should be given for on site processing of such waste
- Transport non-bio-degradable waste to the respective processing facility or material recovery facilities (MRF) or secondary storage facility;
- Transport construction and demolition waste as per Construction and Demolition Waste management Rules, 2016
- Involve communities in waste management and promotion of home composting, bio-gas generation, decentralized processing of waste at community level subject to control of odour and maintenance of hygienic conditions around the facility;
- Phase out the use of chemical fertilizer in two years and use compost in all parks, gardens maintained by local authority
- Incentives may be provided to recycling initiatives by informal waste recycling sector.
- Facilitate construction, operation and maintenance of solid waste processing facilities such as
 - i. Bio-methanation,
 - ii. Microbial composting,
 - iii. Vermi-composting,
 - iv. Anaerobic digestion or any other appropriate processing for bio-stabilization of biodegradable wastes
 - v. Facilitate waste to energy processes including refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns
- Make an application for grant of authorization for setting up waste processing, treatment or disposal facility if the volume of waste is exceeding five metric tones per day
- Prepare and submit annual report before the 30th April to the Commissioner, Municipal Administration and to the respective SPCB
- Educate workers including contract workers and supervisors for door to door collection of segregated waste and transporting the unmixed waste during primary and secondary transportation to processing or disposal facility

RULES

Rule 15

- Ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce
- Ensure that provisions for setting up of centres for collection, segregation and storage of segregated wastes, are incorporated in building plan while granting approval of building plan of a group housing society or market complex
- Frame bye-laws and prescribe criteria for levying of spot fine for persons who litters or fails to comply with the provisions of these rules and delegate powers to officers or local bodies to levy spot fines as per the bye laws framed
- Create public awareness on Solid Waste Management
- Stop land filling or dumping of mixed waste soon after the timeline;
- Allow only the non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and pre-processing rejects & residues from waste processing facilities to go to sanitary landfill
- Investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation and
- Wheresoever feasible, take necessary actions to bio-mine or bio-remediate the sites
- In absence of the potential of bio-mining and bio-remediation, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment.



Rule 16

Duties of State Pollution Control Board or Pollution Control Committee

- Enforcement of the Rules in the State through Local Bodies;
- Monitoring of the environmental Standards regarding groundwater, ambient air, leachate quality and compost quality for waste processing and disposal sites;
- Issue of Authorisation to Local Bodies who are generating more than 5 MT/day under the SWM Rules, 2016 & Consent under Water (P&CP) Act, 1974 and Air (P&CP) Act, 1981;
- Regulate Inter-State movement of waste
- Submission of Annual Report in Prescribed Form V to CPCB
- Shall facilitate identification and allocation of suitable land for setting up solid waste processing and disposal facilities and
- Review the performance of local bodies, at least once in a quarter.

Rule 17	<i>Duty of manufacturers or brand owners of disposable products and sanitary napkins and diapers</i> • All manufacturers of disposable products such as tin, glass, plastics packaging etc. or brand owners who introduce such products in the market • Shall provide necessary financial assistance to local authorities for establishment of waste management system • Non-biodegradable packaging materials shall be put in place a system to collect back the same • Manufacturers or Brand Owners of sanitary napkins and diapers • Shall explore possibility of using all recyclable materials in their products or • Shall provide a pouch or wrapper for disposal of each napkin or diapers along with the packet of their sanitary products • Shall educate the masses for wrapping and disposal of their products
Rule 18	<i>Duties of the industrial units located within one hundred km from the refused derived fuel and waste to energy plants based on solid waste</i> All industrial units using fuel and located within 100 km from a solid waste based RDF plant shall make arrangements to replace at least 5% of their fuel requirement by RDF so produced.
Rule 19	<i>Criteria for Duties regarding setting-up solid waste processing and treatment facility</i> Operator of the facility • Shall obtain necessary approvals from the SPCB • Responsible for safe and environmentally sound operations of the facility • Shall submit annual report by 30th April to the SPCB
Rule 20	<i>Criteria and actions to be taken for solid waste management in hilly areas</i> • Construction of landfill on the hill shall be avoided • A transfer station at a suitable enclosed location shall be setup to collect residual waste • A suitable land shall be identified in the plain areas down the hill within 25 kilometers for setting up sanitary landfill • The residual waste from the transfer station shall be disposed of at this sanitary landfill.
Rule 21	<i>Criteria for waste to energy process</i> • Non recyclable waste having calorific value of 1500 K/cal/kg or more and • Shall only be utilized for generating energy either or through refuse derived fuel or by giving away as feed stock for preparing refuse derived fuel
Rule 22	<i>Time frame for implementation</i>
Rule 23	<i>State Level Advisory Body</i>
Rule 24	<i>Annual Reports</i>
Rule 25	<i>Accident Reporting</i> In case of an accident at any solid waste processing or treatment or disposal facility or landfill site, the Officer- in- charge of the facility shall report to the local body in Form-VI and the local body shall review and issue instructions if any, to the in- charge of the facility.

4.6.2 SCHEDULES AND FORMS

SCHEDULE-I

Specifications for sanitary landfills

- A) Criteria for site selection
- B) Criteria for development of facilities at the sanitary landfills
- C) Criteria for specifications for land filling operations and closure on completion of land filling
- D) Criteria for pollution prevention
- E) Criteria for water quality monitoring
- F) Criteria for ambient air quality monitoring
- G) Criteria for plantation at landfill Site
- H) Criteria for post-care of landfill site
- I) Criteria for special provisions for hilly areas
- J) Closure and Rehabilitation of Old Dumps

SCHEDULE-II

Standards of processing & treatment of solid waste

- A) Standards for composting
- B) Standards for treated leachates
- C) Standards for incineration

FORM 1

Application for obtaining authorisation under solid waste management rules for processing/recycling/treatment and disposal of solid waste

FORM 2

Format for issue of authorization

FORM 3

Format of annual report to be submitted by the operator of facility to the local body

FORM 4

Format for annual report on solid waste management to be submitted by the local body

FORM 5

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 6

Accident reporting



FOR DETAILED NOTIFICATION OF
SOLID WASTE MANAGEMENT RULES 2016

(MoEF&CC Notification S.O.3984 (E) dated: 22.08.2022) this notification has been brought out in supersession of Batteries (Management and Handling) Rules, 2001 as amended in 2010.

4.7.1 SALIENT FEATURES OF THE BATTERY WASTE MANAGEMENT RULES, 2022

	RULES
Rule 2	Application: (1) These rules shall apply to I. Producer, dealer, consumer, entities involved in collection, segregation, transportation, re-furbishment and recycling of Waste Battery II. All types of batteries regardless of chemistry, shape, volume, weight, material composition and use. (2) These rules do not apply to Battery used in I. Equipment connected with the protection of the essential security Interests including arms, ammunitions, war material and those intended specifically for military purposes. II. Equipment designed to be sent into space.
Rule 3	Definitions (b)'Automotive battery' means any Battery used only for automotive starter, lighting or ignition power; (c)'Battery' means new or refurbished cell and/or Battery and/or their component, including accumulator, which is any source of electrical energy generated by direct conversion of chemical energy and includes disposable primary and/or secondary battery; (h)'consumer' means end user of Battery (j)'Electric vehicle battery' means any Battery specifically designed to provide traction to hybrid and electric vehicles for road transport;  (l)'Environmentally sound management' means management of Waste Battery in a manner to protect human health and environment against any adverse effects, which may result from any substance contained in Waste Battery. These may include refurbishment, and/or recycling; (m)'Extended Producer Responsibility' means responsibility of any Producer of Battery for Environmentally sound management of Waste Battery (r)'Industrial battery' means any Battery designed for industrial uses, excluding Portable battery, Electric vehicle battery and Automotive battery. These may include sealed Battery (excluding potable battery); unsealed Battery (excluding automotive Battery) and energy storage system Battery; (s)'Manufacturer' means a person or an entity or a company as defined in the Companies Act, 2013 (18 of 2013) or a factory as in the Factories Act, 1948 (63 of 1948) which has facilities for manufacturing of Battery and/or its components. (t)'Portable battery' means Battery that is sealed, less than five kilograms, not made for industrial purposes, electric vehicle or to be used as an Automotive Battery. (u)'Producer' means an entity who engages in: (i) manufacture and sale of Battery including refurbished Battery, including in equipment, under its own brand; or (ii) sale of Battery including refurbished Battery, including in equipment, under its own brand produced by other manufacturers or suppliers; or (iii) import of Battery as well as equipment containing Battery. (v) 'Public Waste Management Authorities' for the purpose of these rules means Village Panchayat, Municipal Corporation, Municipality and agencies engaged on their behalf. (w)'Recycler' means entity engaged in recycling of Waste Battery.

	RULES
	(x)'Refurbishment' means repairing, re-conditioning, re-purposing of used Battery for its second life. (y)'Refurbisher' means entity engaged in refurbishment. (zd)'Used battery' means Battery and/or its components which have been used and have residual life and suitable for refurbishment. (ze)Waste Battery' includes: ▪ Used and/or End of Life Battery and/or its components or spares or parts or consumables which may or may not be hazardous in nature. ▪ Pre-consumer Off-Spec Battery and its components or spares or parts or consumables. ▪ Battery whose date for appropriate use has expired. ▪ Battery which has been discarded by the user.
Rule 4	<i>Functions of Producer</i>
Rule 5	<i>Functions of Consumer</i>
Rule 6	<i>Functions of Public Waste Management Authorities</i>
Rule 7	<i>Functions of entity involved in collection, segregation and treatment</i>
Rule 8	<i>Functions of Refurbisher</i>
Rule 9	<i>Functions of Recycler</i>
Rule 10	<i>Provision of Certificate for Waste Battery</i>
Rule 11	<i>Functions of Central Pollution Control Board</i>
Rule 12	<i>Functions of State Pollution Control Board</i>
Rule 13	<i>Action on violations and imposition of Environmental Compensation</i>
Rule 14	<i>Centralized Online Portal</i>

4.7.2 SCHEDULES AND FORMS

SCHEDULE I

1. Prohibitions on heavy metal content in the Battery
2. Labeling requirements

SCHEDULE II

Targets for Extended Producer Responsibility

- I. In case of a new Producer introducing Battery in the market in the subsequent years after the publication of these rules, the Extended Producer Responsibility targets shall be applicable for different types of Battery, based on the average life of the Battery mentioned in the tables below for the respective types of Battery.
- II. The Extended Producer Responsibility target shall include the collection targets mentioned in the tables below and 100% recycling and/or refurbishment target of Extended Producer Responsibility collection target of the respective year.
- III. The recycling of Waste Battery means recycling of Battery materials such as lead, nickel, lithium, nickel, cobalt, plastics, rubber, glass, etc.
- IV. Extended Producer Responsibility target for the Producer shall be specific to the kind of Battery (viz. Lead acid, Li-Ion, Nickel Cadmium, Zinc based Battery, etc.) within each type of Battery- portable, automotive, industrial and electric vehicle Battery.
- V. Producer will meet their Extended Producer Responsibility obligation through the Extended Producer Responsibility certificate made available by recycler or refurbisher. In case of non-availability of Extended Producer Responsibility certificates with recyclers or refurbishes, the Producer shall have the responsibility of collection as well.
- VI. For portable Battery used in consumer electronics which are rechargeable.

VI) For portable Battery used in consumer electronics which are rechargeable

No	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every ten year cycle (Weight)
(i)	2022-23 to 2031-32	2022-2023	Minimum 50% of the quantity of Battery placed in the market in 2017-18.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of ten year compliance cycle (end of 10th year) against the Battery placed in the market during ten year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the ten year cycle to the next compliance cycle.
(ii)		2023-2024	Minimum 60% of the quantity of Battery placed in the market in 2018-19.	
(iii)		2024-2025	Minimum 70% of the quantity of Battery placed in the market in 2019-2020.	
(iv)		2025-2026	Minimum 70% of the quantity of Battery placed in the market in 2020-21.	
(v)		2026-2027	Minimum 70% of the quantity of Battery placed in the market in 2021-22.	
(vi)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	
(vii)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	
(viii)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	
(ix)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(x)		2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(xi)		2032-33 and onwards	Minimum 70% of the quantity of Battery placed in the market in 5th preceding financial year (i.e. 2027-28) and onwards.	

VII) For portable Battery except those used in consumer electronics which are rechargeable

No	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every ten year cycle (Weight)
(i)	2025-26 till 2034-35	2025-2026	Minimum 50% of the quantity of Battery placed in the market in 2022- 23.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of ten year compliance cycle (end of 10th year) against the Battery placed in the market during ten year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the ten year cycle to the next compliance cycle.
(ii)		2026-2027	Minimum 60% of the quantity of Battery placed in the market in 2023- 24.	
(iii)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2024- 25.	
(iv)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2025- 26.	
(v)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2026- 27.	
(vi)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2027- 28.	
(vii)		2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2028- 29.	
(viii)		2032-2033	Minimum 70% of the quantity of Battery placed in the market in 2029- 30.	
(ix)		2033-2034	Minimum 70% of the quantity of Battery placed in the market in 2030- 31.	
(x)		2034-2035	Minimum 70% of the quantity of Battery placed in the market in 2031- 32.	
(xi)	2035-36 till 2044-45, and onwards	2035-2036 and onwards	Minimum 70% of the quantity of Battery placed in the market in 3 rd preceding financial year (i.e.2032-33) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of ten year compliance cycle (end of 10 th year) against the Battery placed in the market during ten year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the ten year cycle to the next compliance cycle.

VIII) For automotive Battery

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% of refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2022-23 till 2028-29	2022 - 2023	Minimum 30% of the quantity of Battery placed in the market in 2019-20.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 20% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.
(ii)		2023 - 2024	Minimum 50% of the quantity of Battery placed in the market in 2020-21.	
(iii)		2024 - 2025	Minimum 70% of the quantity of Battery placed in the market in 2021-22.	
(iv)		2025 - 2026	Minimum 90% of the quantity of Battery placed in the market in 2022-23.	
(v)		2026 - 2027	Minimum 90% of the quantity of Battery placed in the market in 2023-24.	
(vi)		2027 - 2028	Minimum 90% of the quantity of Battery placed in the market in 2024-25.	
(vii)		2028 - 2029	Minimum 90% of the quantity of Battery placed in the market in 2025-26.	
(viii)	2029-30 till 2035-36, and onwards	2029 - 2030 And onwards	Minimum 90% of the quantity of Battery placed in the market in 3rd preceding financial year (i.e. 2026- 27) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 20% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

IX) For Industrial Battery

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2022-23 till 2028-29	2022-2023	Minimum 40% of the quantity of Battery placed in the market in 2019-20.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.
(ii)		2023-2024	Minimum 50% of the quantity of Battery placed in the market in 2020-21.	
(iii)		2024-2025	Minimum 60% of the quantity of Battery placed in the market in 2021-22.	
(iv)		2025-2026	Minimum 70% of Battery placed in the market 2022-23.	
(v)		2026-2027	Minimum 70% of the quantity Of Battery placed in the market in 2023-24.	
(vi)		2027-2028	Minimum 70% of the quantity Of Battery placed in the market in 2024-25.	
(vii)		2028-2029	Minimum 70% of the quantity Of Battery placed in the market in 2025-26.	
(viii)	2029-30 till 2035-36 and onwards	2029-2030 And onwards	Minimum 70% of the quantity of Battery placed in the market in 3rd preceding financial year (i.e. 2026- 27) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

X) For Electric Vehicles (EV) Battery of E-rickshaw (three wheelers)

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2024-25 till 2030-31	2024-2025	Minimum 70% of the quantity of Battery placed in the market in 2021-22.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.
(ii)		2025-2026	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	
(iii)		2026-2027	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	
(iv)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	
(v)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(vi)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(vii)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2027-28.	
(viii)	2031-32 till 2037-38 and onwards	2031-2032 and Onwards	Minimum 70% of the quantity of Battery placed in the market in the 3rd preceding financial year (i.e. 2028-29) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

XI) For Electric Vehicles (EV) Battery of two wheelers

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2026-27 till 2032-33	2026-2027	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	Collection of 100% Waste Battery and of 100% of refurbishment /recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.
(ii)		2027-2028	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	
(iii)		2028-2029	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	
(iv)		2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(v)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(vi)		2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2027-28.	
(vii)		2032-2033	Minimum 70% of the quantity of Battery placed in the market in 2028-29.	
(viii)	2033-34 till 2039-40 and onwards	2033-2034 and Onwards	Minimum 70% of the quantity of Battery placed in the market in the 4th preceding financial year (i.e. 2029-30) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of seven year compliance cycle (end of 7th year) against the Battery placed in the market during seven year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the seven year cycle to the next compliance cycle.

XII) For Electric Vehicles (EV) Battery comprising of four wheelers

No.	Compliance cycle	Year	Mandatory Waste Battery collection target and 100% of refurbishment or recycling of the collection target (Weight)	Mandatory Waste Battery collection target, and 100% refurbishment and/or recycling target for every seven year cycle (Weight)
(i)	2029-30 till 2042-43	2029-2030	Minimum 70% of the quantity of Battery placed in the market in 2021-22.	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of fourteen year compliance cycle (end of 14th year) against the Battery placed in the market during fourteen year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the fourteen year cycle to the next compliance cycle.
(ii)		2030-2031	Minimum 70% of the quantity of Battery placed in the market in 2022-23.	
(iii)		2031-2032	Minimum 70% of the quantity of Battery placed in the market in 2023-24.	
(iv)		2032-2033	Minimum 70% of the quantity of Battery placed in the market in 2024-25.	
(v)		2033-2034	Minimum 70% of the quantity of Battery placed in the market in 2025-26.	
(vi)		2034-2035	Minimum 70% of the quantity of Battery placed in the market in 2026-27.	
(vii)		2035-2036	Minimum 70% of the quantity of Battery placed in the market in 2027-28.	
(viii)		2036-2037	Minimum 70% of the quantity of Battery placed in the market in 2028-29.	
(ix)		2037-2038	Minimum 70% of the quantity of Battery placed in the market in 2029-30.	
(x)		2038-2039	Minimum 70% of the quantity of Battery placed in the market in 2030-31.	
(xi)		2039-2040	Minimum 80% of the quantity of Battery placed in the market in 2031-32.	
(xii)		2040-2041	Minimum 70% of the quantity of Battery placed in the market in 2032-33.	
(xiii)		2041-2042	Minimum 70% of the quantity of Battery placed in the market in 2033-34.	
(xiv)		2042-2043	Minimum 70% of the quantity of Battery placed in the market in 2034-35.	

XII) For Electric Vehicles (EV) Battery comprising of four wheelers

(viii)	2043-44 till 2056-57	2043-2044 and onwards	Minimum 70% of the quantity of Battery placed in the market in the 8th preceding financial year (i.e. 2035-36) and onwards	Collection of 100% Waste Battery and of 100% of refurbishment or recycling shall be mandatory by end of fourteen year compliance cycle (end of 14th year) against the Battery placed in the market during fourteen year compliance cycle. However, there may be a carry forward of up to 60% of the average quantity of Battery placed in the market per year during the fourteen year cycle to the next compliance cycle.
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Form -1(A)

Application to be submitted for grant or renewal of registration as a Producer

Form -1(B)

Format for grant of registration to Producer by Central Pollution Control Board

Form -1(C)

Format for submission of Extended Producer Responsibility plan by the Producer

Form 2(A)

Application to be submitted by recycler or refurbisher for grant of one time registration

Form 2(B)

Format for grant of registration to recycler or refurbisher by State Pollution Control Boards

Form 3

Annual returns to be submitted by Producer by 30th day of June of the following financial year

Form 4

Quarterly return to be submitted by recycler or refurbisher to State Pollution Control Boards by end of the month succeeding the end of the quarter



4.8 TYRE WASTE MANAGEMENT

4.8.1 SALIENT FEATURES OF THE TYRE WASTE MANAGEMENT

Producer:

any person or entity who

- Manufacture new tyre
- Sells new tyre
- Sells imported new tyres
- imports vehicles fitted with new tyres
- imports waste tyre
- automobile manufacturers importing new tyre

Recycler

any person or entity engaged in any process or action of converting waste tyre into following end products, namely

- reclaimed rubber
- crumb rubber modified bitumen (CRMB)
- recovered carbon black, which is usable as raw material for manufacture of new tyre
- pyrolysis oil or Char, which is used only as a fuel and not as raw material for manufacture of new tyres
- automobile manufacturers importing new tyre

Retreader

any person or entity engaged in the process of renewal of tread and side wall rubber of a worn out tyre having a good structural quality

Highlights

- All producers shall have the extended producer responsibility (EPR) obligation.
- Producer, Recycler and Retreader should obtain the registration from CPCB.
- CPCB will issue EPR Certificate in favour of registered recycler.
- The producer shall be responsible for fulfilment of EPR by purchasing extended producer responsibility certificates from registered recyclers only.
- The import of waste tyre for the purpose of producing pyrolysis oil or char is prohibited.
- The producer & recycler shall file annual and quarterly returns in the forms as specified by the CPCB.
- Any person who provides incorrect information for obtaining EPR certificates, violates the Schedule may be prosecuted under section 15 & may be levied environmental compensation.



EXTENDED PRODUCER RESPONSIBILITY FOR WASTE TYRE, 2016:

All producers shall have the following extended producer responsibility obligations, namely:

(a) For manufacturers/importers of new tyres:

S.No	Year	Waste Tyre Recycling Target in Weight (KG or Tons)
i.	EPR obligation of the Year 2022- 23 (The year in which this regulation comes into force	35% Of the quantity of new tyres Manufactured/ imported in Year 2020-21
ii.	EPR obligation of the Year 2023-24	70% Of the quantity of new tyres Manufactured/ imported in Year 2021-22
iii.	EPR obligation of the Year 2024-25	100% Of the quantity of new tyres Manufactured/ imported in Year 2022-23
iv.	After 2024-25 (Year Y), the EPR obligation will be 100% of the quantity of new tyres manufactured/ imported in the year (Y-2).	
v.	Units established after 1 st April, 2022, the EPR obligation will start after two years (Y) and will be 100% of the new tyres manufactured/imported in the year (Y -2).	

(b) For waste tyre importer:

- The EPR obligation for waste tyre importer in year (Y) will be 100% of the tyre imported in year (Y -1)
- The import of waste tyre for the purpose of producing pyrolysis oil/ char is prohibited.

CHAPTER 5

IMPORTANT NOTIFICATIONS UNDER ENVIRONMENTAL (PROTECTION) ACT, 1986



CHAPTER 5

IMPORTANT NOTIFICATIONS UNDER ENVIRONMENTAL (PROTECTION) ACT, 1986

5.1 ENVIRONMENT IMPACT ASSESSMENT (EIA) NOTIFICATION, 2006 AS AMENDED

5.1.1 ENVIRONMENT IMPACT ASSESSMENT (EIA) DEFINITION

The International Association For Impact Assessment (IAIA) definition:

“The process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant impacts of development proposals prior to major decisions being taken and commitments made.”

5.1.2 PURPOSE OF EIA

- It promotes sustainable development by identifying environmentally sound practice and mitigation measures for developments.
- To ensure that environmental consequences were taken into account during planning, designing & decision Making process.
- To influence how it is subsequently managed during its implementation.
- The adverse impacts could be avoided or reduce

5.1.3 EIA NOTIFICATIONS IN INDIA

The Indian experience with Environmental Impact Assessment began on 1976-77 when the Planning Commission asked the Department of Science and Technology to examine the river-valley projects from an environmental angle.

Till 1994, environmental clearance from the Central Government was an administrative decision and lacked legislative support.

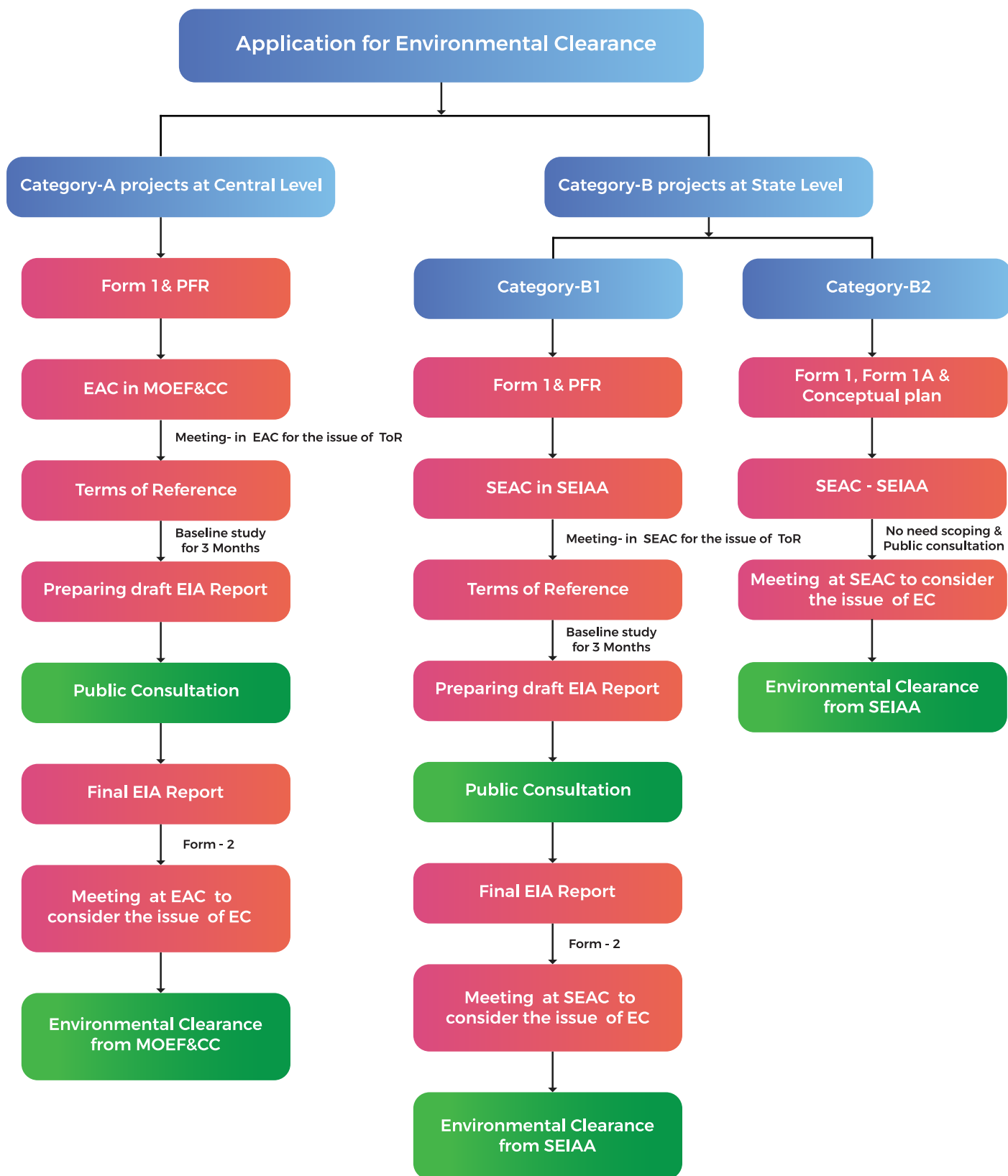
On 27 January 1994, the then Union Ministry of Environment and Forests, under the Environmental (Protection) Act 1986, promulgated an EIA notification making Environmental Clearance (EC) mandatory for expansion or modernisation of any activity or for setting up new projects listed in Schedule 1 of the notification.

The Ministry of Environment, Forests and Climate Change (MoEFCC) notified new EIA legislation in 14th September 2006.

The notification makes it mandatory for various projects such as mining, thermal power plants, river valley, infrastructure (road, highway, ports, harbours and airports) and industries including foundry units to get environment clearance.

However, unlike the EIA Notification of 1994, the new legislation has put the onus of clearing projects on the state government depending on the size/capacity of the project.

ENVIRONMENTAL CLEARANCE PROCEDURE FOR ALL CATEGORIES-EIA NOTIFICATION 2006



MoEF & CC - Ministry of Environment, Forest & Climate Change
 EAC - Central Level Expert Appraisal Committee
 SEIAA - State Level Environment Impact Assessment Authority
 SEAC - State Level Expert Appraisal Committee
 ToR- Terms of Reference
 EC - Environmental clearance
 PFR - Pre-Feasibility Report

5.1.4 LIST OF PROJECTS OR ACTIVITIES REQUIRING PRIOR ENVIRONMENTAL CLEARANCE

(As per EIA Notification 2006 vide S.O.1533 dated 14.09.2006 and its further amendments)

Project or Activity		Category with threshold limit		Conditions if any
		Central (A)	State (B)	
1	Mining, extraction of natural resources & power generation (for a specified production capacity)			
1(a)	(i) Mining of minerals <			

			Medium irrigation system (> 2000 and < 10,000 ha.)	prepare EMP and to be dealt at state level (B2 category).	in Culturable Command Area but without increase in dam height and submergence, will not require amendment/ revision of EC. (iii) Irrigation projects involving Inter-State issues shall be appraised at Central level without change in category.
			(c) Major irrigation system (≥10,000)	Required to Prepare EIA / EMP and to be dealt at state level (B1 category).	
1(d)	Thermal Power Plants	≥ 500 MW (coal / lignite / naphtha & gas based); ≥ 100 MW (all other fuels except biomass); ≥ 20 MW (using municipal solid non-hazardous waste as fuel)	≥ 5 MW to < 500 MW (coal / lignite / naphtha and gas based); <100 MW ≥ 5 MW (all other fuels except biomass and municipal solid non-hazardous waste as fuel) < 20 MW > 15 MW (using municipal solid non-hazardous waste, as fuel) ≥ 15 MW plants based on biomass as fuel.		General condition shall apply <u>Note:</u> (i) Thermal Power plants up to 25 MW, based on biomass or non- hazardous municipal solid waste using auxiliary fuel such as coal, lignite, Petroleum products up to 15% are exempt (ii) Thermal Power plants using waste heat boilers without any auxiliary fuel are exempt.
1(e)	Nuclear power projects and processing of nuclear fuel	All projects	---	---	---
2	Primary Processing				
2(a)	Coal washeries	≥ 2.5 million ton / annum throughput of coal	< 2.5 million ton / annum throughput of coal		i) General Condition shall apply (If located within mining area the proposal shall be appraised together with the mining proposal) ii) Integrated coal mining projects with washeries located within mining lease area shall continue to be considered at Central level or State level, as the case may be, as per the extant threshold for coal mining projects.
2(b)	Mineral Beneficiation	---	All mineral beneficiation projects irrespective of the procedure for beneficiation		General Condition shall apply (Mining proposal with Mineral beneficiation shall be appraised together for grant of clearance). Integrated mining projects with beneficiation plants located within mining lease area shall continue to be considered at Central level or State level, as the case may be, as per the extant threshold for mining projects.

3	Materials Productions			
3(a)	Metallurgical industries (ferrous & non-ferrous)	a) Primary metallurgical industry all projects b) Sponge iron manufacturing ≥ 200 TPD c) Secondary metallurgical processing industry All toxic and heavy metal producing units $\geq 20,000$ tonnes / annum	Sponge iron manufacturing < 200 TPD 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 > 500 tonnes / annum (B2 - Induction & electric arc furnaces, submerged arc furnaces & cupola $> 30,000$ TPA but $< 60,000$ TPA located within notified industrial estate)	General Condition shall apply <u>Note:</u> (i) The recycling industrial units registered under the HSM rules are exempted (ii) In the case of secondary metallurgical processing industrial units, those projects involving operation of furnaces only such as induction and electric arc furnace, submerged arc furnace and cupola with capacity more than 30,000 tons per annum (TPA) would require environment clearance (iii) Plant / units other than power plants (given against entry no. 1(d) of the schedule), based on municipal solid waste (non-hazardous) are exempted
3(b)	Cement plants	≥ 1.0 million tonnes / annum production capacity	< 1.0 million tons / annum production capacity. All Stand alone grinding units (B2 - All Stand-alone grinding units transport $> 90\%$ raw material & product through railways)	General Condition shall apply <u>Note:</u> 1. Fuel for cement industry may be coal, pet coke, mixture of coal and pet coke and co-processing of waste provided it meets the emission standards. 2. The manufacturing of composite cement by plants having environmental clearance for manufacturing Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC) and Portland Slag Cement (PSC) shall be exempt provided the production is within sanctioned capacity.
4	Materials Processing			
4(a)	Petroleum refining industry	All projects	-	-
4(b)	(i) Coke oven plants (ii) Coal tar processing units	$\geq 2,50,000$ tons / annum -	$< 2,50,000$ & $\geq 25,000$ tonnes / annum All projects	General Condition shall apply
4(c)	Asbestos milling and asbestos based products	All projects	-	-
4(d)	Chlor-alkali industry	≥ 300 TPD production capacity if a unit located outside the notified industrial area /	(i) All projects irrespective of the size, if it is located in a Notified Industrial Area / Estate.	General as well as Specific Conditions shall apply. No new mercury Cell based plants will be permitted and

		estate	(ii) < 300 tons per day (TPD) and located outside a Notified Industrial Area / Estate. (B2 - < 300 TPD located within a Notified Industrial Estate)	existing units converting to membrane cell technology are exempted from the Notification.
4(e)	Soda ash Industry	All projects	-	-
4(f)	Skin / hide processing including tanning industry	New projects outside the industrial area or expansion of existing units outside the industrial area	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 including all single super phosphate with H ₂ SO ₄ production except granulation of chemical fertilizers	All single super phosphate without H ₂ SO ₄ production and granulation of chemical fertilizers	General Condition shall apply Note: 1. Granulation of single super phosphate powder is exempt. 2. Neem coating of fertilizers is exempt provided that the total production does not exceed the sanctioned capacity in EC plus the weight of the coating material used. 3. Fortification of fertilizers is exempt provided that the total production does not exceed the sanctioned capacity in EC plus the weight of the fortification material used.
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)	Petroleum products and petrochemical based processing such as production of carbon black and electrode grade graphite	Located outside the notified industrial area / estate	Located in a notified industrial area / estate	General as well as Specific Conditions shall apply Note - Manufacturing of products from polymer granules is exempt.

	(processes other than cracking & reformation and not covered under the complexes)			
5(f)	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediated excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)	Located outside the notified industrial area / estate except small units as defined in column (5).	(i) Located in a notified industrial area / estate (ii) Small units as defined in column (5)	General and Specific Conditions shall apply. Small units : with water consumption <25 m ³ /day, fuel consumption <25 TPD and not covered in the category of MAH units as per the Management, Storage and import of Hazardous Chemical Rules, 1989. All proposals for projects or activities in respect of Active Pharmaceutical Ingredients (API), received up to the 31 st March 2021, shall be appraised, as Category 'B2' projects, provided that any subsequent amendment or expansion or change in product mix, after the 31 st March 2021 shall be considered as per the provisions in force at that time.
5(g)	Distilleries	(i) Molasses based distilleries >100 KLD (ii) Non-molasses-based distilleries >200 KLD	(i) Molasses based distilleries ≤100 KLD (ii) Non-molasses-based distilleries ≤200 KLD	(a) Except for the projects falling in item 5(ga) of this Schedule; (b) Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

5(ga)	Grain based distilleries producing ethanol, solely to be used for Ethanol Blended Petrol Programme of the Government of India Note: Grains include wheat, rice, maize, barley, sorghum.	Projects without Zero Liquid Discharge	Projects with Zero Liquid Discharge	Note: (i) Projects under category B shall be appraised as B2 category project and in terms of para 4(iia) of this notification (ii) Applicable for projects who file application for grant of EC upto 31st March 2024 or till further notification whichever is earlier provided that any subsequent amendment or expansion or change in product mix after 31st March 2024, shall be considered as per the provisions in force at that time. (iii) The project proponent shall file a notarised affidavit that ethanol produced from proposed project shall be used completely for EBP Programme. Provided that subsequently if it is found that the ethanol produced, based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled".
5(h)	Integrated Paint Industry	---	All projects	General Condition shall apply
5(i)	Pulp & paper industry	Pulp manufacturing and Pulp and Paper manufacturing except from waste paper	Pulp manufacturing from waste paper and paper from water paper pulp and other ready pulp.	General Condition shall apply Note : Paper manufacturing from waste paper pulp and ready pulp without deinking, bleaching and colouring is exempt.
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	All projects	-	

	including LNG Terminal			
6(b)	Omitted			
7	Physical Infrastructure including Environmental Services			
7(a)	Air ports	All New projects including airstrips, which are for commercial use	All expansions projects, including airstrips, which are for commercial use.	Note: (i) Air strips which do not involve bunkering / refueling facility and or Air Traffic Control, are exempted. (ii) Only expansion of terminal buildings and allied buildings within the existing Airport premises >20,000 shall require Environmental Clearance, and such expansion up to 1,50,000 sqm shall be appraised as per provisions of item 8(a) of the Schedule of this notification provided there is no increase in the existing area of the Airport.
7(b)	All ship breaking yards including ship breaking units	All projects	-	-
7(c)	Industrial estates / parks / complexes / areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes	If at least one industry in the proposed industrial estate falls under the Category A, entire industrial area shall be treated as Category A, irrespective of the area. Industrial estates with area greater than 500 ha. And housing at least one Category B industry.	Industrial estates housing at least one Category B industry and area < 500 ha. Industrial estates of area > 500 ha. and not housing any industry belonging to Category A or B.	General as well as Special conditions shall apply <u>Note:</u> (i) Industrial Estate of area below 500 ha and not housing any industry of category 'A' or 'B' does not require clearance. (ii) If the area is less than 500 ha but contains building and construction projects > 20,000 Sq.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 & landfill or incineration alone	All facilities having land fill only.	General Condition shall apply.
7(da)	Bio-Medical Waste Treatment Facilities	-	All projects	-
7(e)	Ports, Harbours, break waters, dredging	≥ 5 million TPA of cargo handling capacity (excluding fishing harbours)	< 5 million TPA of cargo handling capacity and/or ports / harbours ≥ 30,000 TPA of fish handling capacity	General Condition shall apply <u>Note:</u> (i) Capital dredging inside and outside the ports or harbours and channels are included (ii) Maintenance dredging is exempt provided it formed

				part of the original proposal for which Environment Management Plan (EMP) was prepared and Environmental clearance obtained.
7(f)	Highways	i) New National High ways (No specific TOR required for this item if located in border state); and ii) Expansion of National High ways greater than 100 km involving additional right of way or land acquisition greater than 40 m on existing alignments and 60 m on re-alignments of by-passes (No specific TOR required for this item)	(i) All New State Highway projects (No specific TOR required for this item if located in border state); and (ii) State Highway expansion projects in hilly terrain (above 1000 m AMSL) and or ecologically sensitive areas (No specific TOR required for this item)	General Condition shall apply <u>Note:</u> (i) Highways include express-ways (ii) All Highway projects are exempted upto 100 km from line of control or border subject to compliance of Standard Operating Procedure notified in this regard from time to time. (iii) Width at toll plaza and junction improvement at intersection of other roads is exempted from Right of Way.
7(g)	Omitted			
7(h)	Common Effluent Treatment Plants (CETPs)	-	All projects	General Condition shall apply Note: Environmental clearance for CETPs setup for or within projects or activities which do not require environmental clearance are exempted, and if any of the existing or proposed member units of the said CETP produces or proposes to produce any product requiring environmental clearance, then the CETP shall need environmental clearance.
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		≥ 20,000 sq. mtrs and < 1,50,000 sq. mtrs of built-up area	Note - 1 : The term “built up area” for the purpose of this notification is the built up or covered area on all floors put together including its basement and other service areas, which are proposed in the buildings & construction projects. Note - 2 : The projects or activities shall not include industrial sheds, educational institutions, and hostels for educational institutions upto 1,50,000 sq.mm.

				Note - 3 : General Condition shall not apply.
8(b)	Townships and Area Development projects		≥ 1,50,000 sq. mtrs of built up area and or covering an area ≥ 50 ha	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.

GENERAL CONDITION (GC)

Any project or activity specified in Category 'B' will be appraised at Central level as Category 'A', if located in whole or in part within 5 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972 (53 of 1972); (ii) Critically polluted areas as identified by the Central Pollution Control Board constituted under Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) from time to time; (iii) Eco-sensitive areas as notified under sub-section (2) of section 3 of the Environment (Protection) Act, 1986 and (iv) inter-state boundaries and international boundaries; provided that for River Valley projects specified in item 1(c), Thermal Power Plants specified in item 1(d), Industrial estates/ parks/ complexes/ areas, export processing Zones (EPZs), Special Economic Zones (SEZs), Biotech Parks, Leather Complexes specified in item 7(c) and Common hazardous waste treatment, storage and disposal facilities (TSDFs) specified in item 7(d), the appraisal shall be made at Central level even if located within 10 km. Provided further that the requirement regarding distance of 5 km or 10 km, as the case may be, of the inter-state boundaries can be reduced or completely done away with by an agreement between the respective states or the Union Territories sharing the common boundary in case the activity does not fall within 5 km or 10 km, as the case may be of the areas mentioned at item (i), (ii) and (iii) above.

SPECIFIC CONDITION (SC)

If any industrial Estate / Complex / Export processing Zones / Special Economic Zones / Biotech Parks / Leather Complex with homogenous 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 homogenous, 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 clearance, who may be held responsible for violation of the same throughout the life of the complex / estate).

5.1.5 ENVIRONMENT IMPACT ASSESSMENT PROCESS

EIA involves the steps mentioned below. However, the EIA process is cyclical with interaction between the various steps.

Screening: The project plan is screened for scale of investment, location and type of development and if the project needs statutory clearance.

Scoping: The project's potential impacts, zone of impacts, mitigation possibilities and need for monitoring.

Collection of baseline data: Baseline data is the environmental status of study area.

Impact prediction: Positive and negative, reversible and irreversible and temporary and permanent impacts need to be predicted which presupposes a good understanding of the project by the assessment agency.

Mitigation measures and EIA report: The EIA report should include the actions and steps for preventing, minimizing or by passing the impacts or else the level of compensation for probable environmental damage or loss.

Public hearing: On completion of the EIA report, public and environmental groups living close to project site may be informed and consulted.

Decision making: Impact Assessment Authority along with the experts consult the project-in-charge along with consultant to take the final decision, keeping in mind EIA and EMP (Environment Management Plan).

Monitoring and implementation of environmental management plan: The various phases of implementation of the project are monitored.

Assessment of Alternatives, Delineation of Mitigation Measures and Environmental Impact

Assessment Report: For every project, possible alternatives should be identified, and environmental attributes compared. Alternatives should cover both project location and process technologies.

Once alternatives have been reviewed, a mitigation plan should be drawn up for the selected option and is supplemented with an Environmental Management Plan (EMP) to guide the proponent towards environmental improvements.

Risk assessment: Inventory analysis and hazard probability and index also form part of EIA procedures.



**FOR DETAILED NOTIFICATIONS, OFFICE MEMORANDUM AND CIRCULARS
RELATED TO EIA NOTIFICATIONS ISSUED BY THE MOEF&CC, GOVERNMENT OF INDIA**

5.2 COASTAL REGULATION ZONE (CRZ) NOTIFICATION

According to Clause(d) of sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby declares “the coastal stretches of seas, bays, estuaries, creeks, rivers and backwaters which are influenced by tidal action (in the landward side) up to 500 meters from the High Tide Line (HTL) and the land between the Low Tide Line (LTL) and the HTL are referred as Coastal Regulation Zone”.

Keeping in view the importance of the coastal environment and the need to protect the coastal ecosystems from the pressures of developmental activities, the Ministry of Environment and Forest, Government of India had issued the Coastal Regulation Zone (CRZ) Notification, 1991 under the Environment (Protection) Act, 1986. Later on 6th of January 2011, Government of India issued CRZ Notification 2011 by making several changes in the CRZ Notification 1991 with the following objectives,

- to ensure livelihood security to the fisher communities and other local communities, living in the coastal areas,
- to conserve and protect coastal stretches, its unique environment and its marine area
- to promote development through sustainable manner based on scientific principles taking into account the dangers of natural hazards in the coastal areas, sea level rise due to global warming,
- declare the coastal stretches of the country as Coastal Regulation Zone

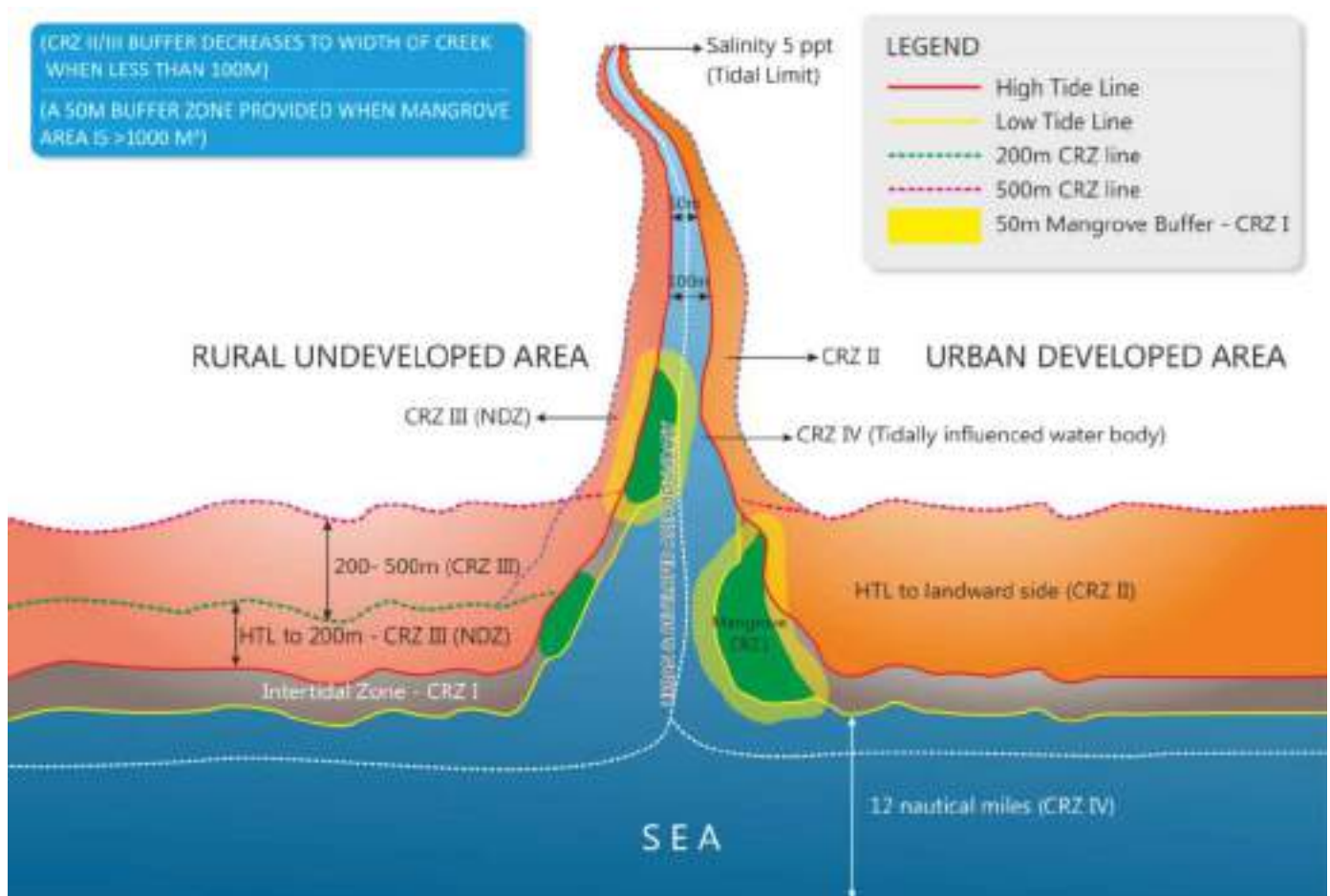
5.2.1 COSTAL REGULATION ZONE AREA

- The land area from High Tide Line (hereinafter referred to as the HTL) to 500mts on the landward side along the sea front
- The land area between HTL to 100 mts or width of the creek whichever is less on the landward side along the tidal influenced water bodies upto a distance to be determined based on salinity concentration of 5 parts per thousand (ppt) measured during the driest period of the year.
- Land area between HTL and Low Tide Line which will be termed as the inter tidal zone.
- 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.
- HTL means the line on the land up to 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) authorized by the MoEF

5.2.2 COSTAL REGULATION ZONE CLASSIFICATION

For the purpose of conserving and protecting the coastal areas and marine waters, the CRZ area shall be classified as follows:

- CRZ-I,-
 - The areas that are ecologically sensitive
 - The area between Low Tide Line and High Tide Line; (inter tidal zone)
- CRZ-II – areas of substantially built up (Municipal areas)
- CRZ-III – Rural areas
- CRZ-IV – water area
- CRZ-V
 - Areas requiring special consideration
 - Critically Vulnerable Coastal Areas (CVCA)



5.2.3 PROCEDURE FOR CRZ CLEARANCE OF PERMISSIBLE ACTIVITIES

Processing of the CRZ clearance applications

3 tier structure to process applications

- o National Coastal Zone Management Authority (NCZMA)
- o State Coastal Zone Management Authority (SCZMA)
- o District Coastal Zone Management Authority (DCZMA)

Applications for clearance are first scrutinized by DCZMA with District Collector as Chairman and District Environmental Engineer, TNPCB as Convener. Recommendations of the DCZMA are considered by SCZMA and approvals are given for all the projects which are in the purview of SCZMA consisting of 12 member body with Principle Secretary, E&F as Chairman and Director of Environment as Member Secretary. Recommendations of the SCZMA are considered and approvals are given for all the projects which are in the purview of NCZMA constituted by MoEF, GoI.

All projects attracting this notification shall be considered for CRZ clearance as per the following procedure:

- The project proponents shall apply with the following documents seeking prior clearance under CRZ notification to the concerned State or the Union territory Coastal Zone Management Authority,-
- Form-1 (Annexure-IV of the notification);
- Rapid EIA Report, Disaster Management Report, Risk Assessment Report and Management Plan;
- CRZ map indicating HTL and LTL demarcated by one of the authorized agency in 1:4000 scale;
- Project layout superimposed on the above map
- The concerned CZMA shall examine the above documents in accordance with the approved CZMP and in compliance with CRZ notification and make recommendations within a period of sixty days from date of receipt of complete application

MoEF or S E I A shall consider the issuance of Environmental Clearance with CRZ clearance based on the recommendations of the concerned CZMA within a period of sixty days.

5.2.4 VALIDITY OF CRZ CLEARANCE

The clearance accorded to the projects under the CRZ notification shall be valid for the period of seven years from the date of issue of the clearance for commencement of construction and operation.

CRZ Notification 2019, has been published on 18/01/2019 and the preparation and approval of State Coastal Zone Management Plan as per the new Notification is under process. At present the CRZ clearances are issues based on the CRZ notification 2011.

The link for detailed procedure to be followed for CRZ clearance after the approval of State Coastal Zone Management Plan as per the CRZ Notification dated 18th January, 2019



The link for detailed procedure to be followed for CRZ clearance till the State Coastal Zone Management Plan is approved as per the CRZ Notification dated 18th January, 2019



FOR FURTHER DETAILED UPDATED NOTIFICATIONS, CIRCULAR AND PROCEDURES RELATED TO CRZ CLEARANCE

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

SALIENT FEATURES

RULES	
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 abatement 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 instruments 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. 3. The respective State Pollution Control Boards or Pollution Control Committees in consultation with the Central Pollution Control Board shall collect, compile and publish technical and statistical data relating to noise pollution and measures devised for its effective prevention, control and abatement.

RULES

Rule 5	<i>Restriction of the use of loud speakers / Public address system and Sound Producing Instruments:</i> 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 and the like 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	<i>Restrictions on the use of horns, sound emitting construction equipments and bursting of fire crackers:</i> 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	<i>Complaints to be made to the Authority:</i> 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, or 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	<i>Complaints to be made to the Authority:</i> 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 complaint and take action against the violator in accordance with the provisions of these rules and any other law in force.

RULES

Rule 5

Power to prohibit etc., continuance of music sound or Noise:

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 to the public or risk to any 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:-

The incidence or continuance 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, or
- iii. Sound caused by bursting of sound emitting fire crackers, or
- iv. 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:

- Day time shall mean from 6.00 a.m. to 10.00 p.m.
- Night time shall mean from 10.00 p.m. to 6.00 a.m.
- Silence zone is defined as an area comprising not less than 100 metres around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority.
- 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.



FOR FURTHER DETAILED UPDATED NOTIFICATIONS OF,
THE NOISE POLLUTION (REGULATION AND CONTROL) RULES, 2000

CHAPTER 6

CATEGORIZATION OF INDUSTRIES



CHAPTER 6

CATEGORIZATION OF INDUSTRIES

6.1 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
The following components are considered as Fixed Assets, while computing Gross value of Fixed Assets of any company (Source: Circular Rc.No.F/289/TRY/90, dated 07.09.1991). 1. Goodwill 2. Land 3. Approach Road and Railway sidings 4. Building 5. Plant 6. Machinery 7. Equipments 8. Furniture and fixtures 9. Office appliances 10. Electrical Installation 11. Vehicles 12. Livestock 13. Library Books 14. Patents, Trade Marks and Designs 15. Development expenditure for property	
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, dated. 28.5.1991).	

6.2 CATEGORIZATION OF INDUSTRIES

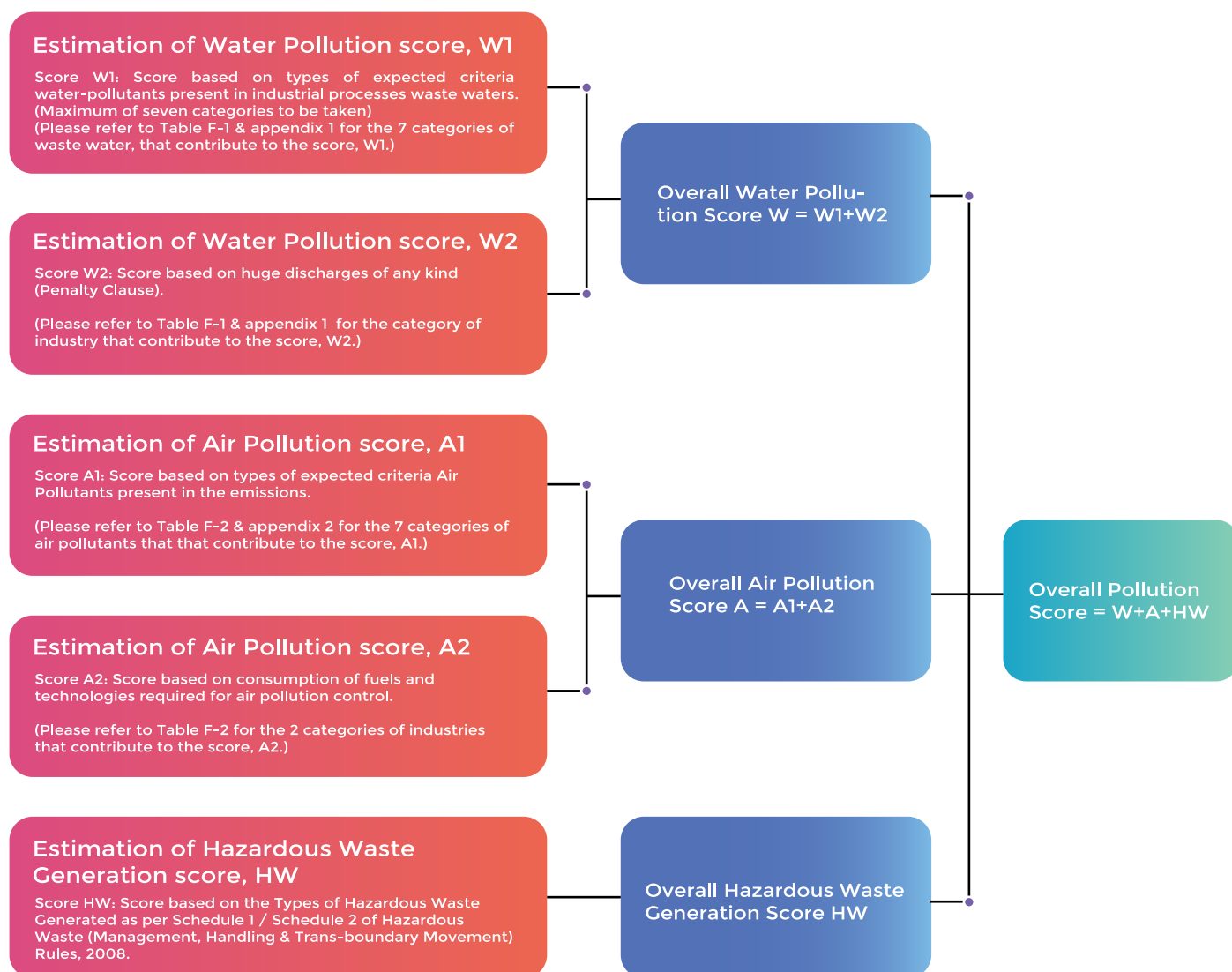
6.2.1 CPCB GUIDELINES FOR CATEGORIZATION OF INDUSTRIAL SECTORS UNDER RED, ORANGE, GREEN AND WHITE CATEGORY

(Extract from Source: CPCB Letter No. B-29012/ESS (CPA)/2015-16/dated 07.03.2016)

The categorization will be done on the basis of composite score (0-100 marks) of Pollution Index given in accordance with the following weightage.

Type of pollution	Parameters	Score
Air Pollution	PM, CO, NOx, SOx, HMs, Benzene, Ammonia and other toxic parameters relevant to the industry.	40 Marks
Water Pollution	pH, TSS, NH ₃ -N, BOD, Phenol and other toxic pollutants relevant to the industry.	40 Marks
Hazardous waste Pollution	Wastes that are land fillable, incinerable, recyclable as generated by the industry.	20 Marks
Note : Parameters are decided on the basis of the nature of the wastes generated from the industrial sector. For industries having only either water pollution or air pollution, the score will be normalized to 100.		

POLLUTION INDEX SCORING METHODOLOGY



Classification (based on GFA)	GFA (₹in Crores)	Category (based on Pollution Index (PI) as per CPCB Guidelines)			
LARGE	> 10	Red (87 types)	Orange (99 types)	Green (70 types)	White (36 types)
MEDIUM	5 to 10	Highly Polluting (PI > 60)	Medium Polluting (PI 41-59)	Less Polluting (PI 21-40)	Non Polluting (PI ≤ 60)
SMALL	< 5				

The industrial sector which doesn't fall under any of the above four categories (Red, Orange, Green and White), decision with regard to its categorization will be taken at the level of concerned SPCB/PCC by a committee headed by the Member Secretary, SPCB/PCC and comprising of two senior cadre Engineers / Scientists of the SPCB/PCC in accordance with the scoring criteria specified in this document.

MODEL CALCULATION WORKED OUT FOR POLLUTION INDEX

For Category 1050 – Aluminum Smelter (This industrial sector is the one among the '17 categories of Highly Polluting Industries. This sector is generating all sorts of pollution i.e. air, water and HW)

Hence, Water Pollution Index W1 as W11 is 30 & W2 is 10
 $W = W1 + W2 = 30 + 10 = 40$

Air Pollution Index A1 as A1C which is 20 & A2F1 is 10
 $A = A1 + A2 = 20 + 10 = 30$

Hazardous Waste Score = HW = HW1 is 20
 Pollution Index is $W + A + HW = 40 + 30 + 20 = 90$

Hence, Aluminum Smelter is categorized as “Red”

Note :

For any other information / references / appendices unless otherwise stated herein above, the parent CPCB Document titled as “Final Document on Revised Classification of Industrial Sectors Under Red, Orange, Green and White Categories (February 29, 2016)” shall be referred.

This document is available on the website of CPCB at the following web-link : <https://cpcb.nic.in/categorization-of-industrial-sectors/>.

6.2.2 CATEGORIZATION OF INDUSTRIES BY TNPCB

(Source: B.P. Ms. No.6 dated 2.8.2016, Proc. No. TNPCB/P&D/Revised Categorisation/2016 dt. 26.10.2016 and B.P. No.66 Dt. 30.11.2017, B.P. No. 26, Dt. 30.07.2018)

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 dated 07.03.2016 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, green and white for grant of consent, inventorization of industries and other related activities. As per the CPCB direction, there shall be no necessity of obtaining the 'Consent to Operate' for white category of industries and an intimation to concerned SPCB shall suffice. The categorization is as follows:

RED CATEGORY

Sl. 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 microscale)
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 assemblies 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 assemblies 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/depolymerisation/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 laddoo 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, pelletizing, 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. (Foundries based on Induction furnace shall also be covered under this sector. Source: CPCB Lr No. B-29012/ESS/CPA/2016-17, dated 21.11.2016).
64	2064	Stone crushers
65	2065	Surgical and medical products including prophylactics and latex
66	2066	Teflon 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 lead-acid 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 educational 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	2098	M.Sand Units with or without stone crushers
99	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 <1 TPD (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 rerolling 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 (Poultry farms less than one lakh birds need not to obtain CTO - As per CPCB F.No. B-29012/IPC-VI/2017-18, dated 19.07.2017)
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 (upto 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 containing 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 finishing/centering etc.
68	3068	Stone and Granite cutting, sizing and polishing units
69	3069	Single Boiled Rice Mills using steam boiling with pre- cleaning process
70	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 dyeing / 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 dyeing 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 and arrive the category. Then the industry shall be asked to select Miscellaneous type available in that category.

6.3 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		



CHAPTER 7

PROCEDURE FOR OBTAINING CONSENT, SITING CRITERIA AND GUIDELINES FOR INDUSTRIES

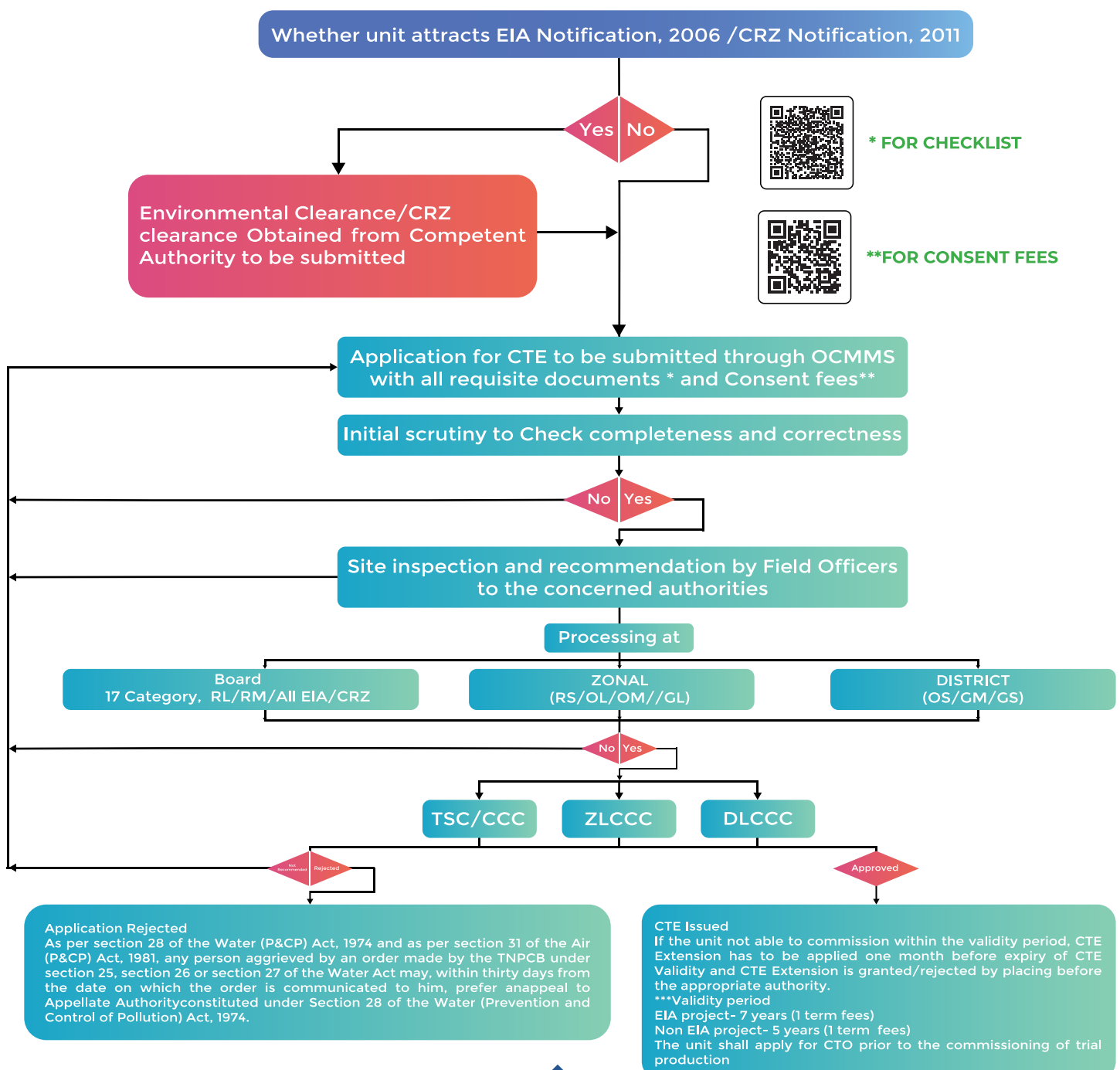


CHAPTER 7

PROCEDURE FOR OBTAINING CONSENT, SITING CRITERIA AND GUIDELINES FOR INDUSTRIES

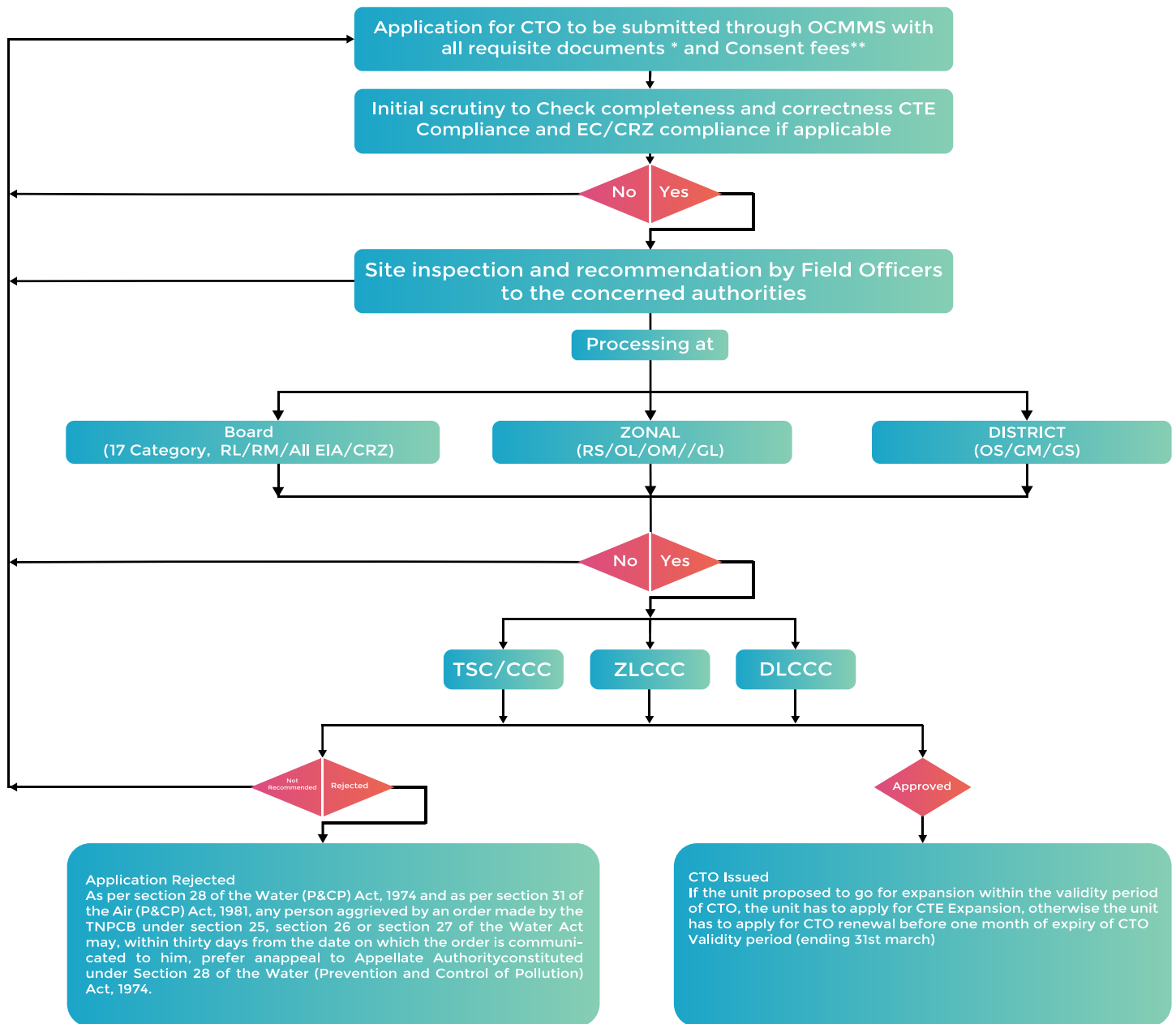
- Consent of the Board has to be obtained for both establishment and operation of the industry as required under the provisions of the Water / Air Acts.
- The Tamil Nadu Pollution Control Board enforces the Water (Prevention and Control of Pollution) Act, 1974 as amended, Air (Prevention and Control of Pollution) Act, 1981 as amended and the Environment (Protection) Act, 1986.
- As per Section 25 of the Water (P&CP) Act, 1974 as amended and as per Section 21 of 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.

7.1 CONSENT TO ESTABLISH (CTE)-FLOW CHART



7.2 CONSENT TO OPERATE (CTO)-FLOW CHART

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.



- Red- 5 years (5 year fees)
- Orange- 10 years (5 year fees)
- Green-14 years (7 year fees)



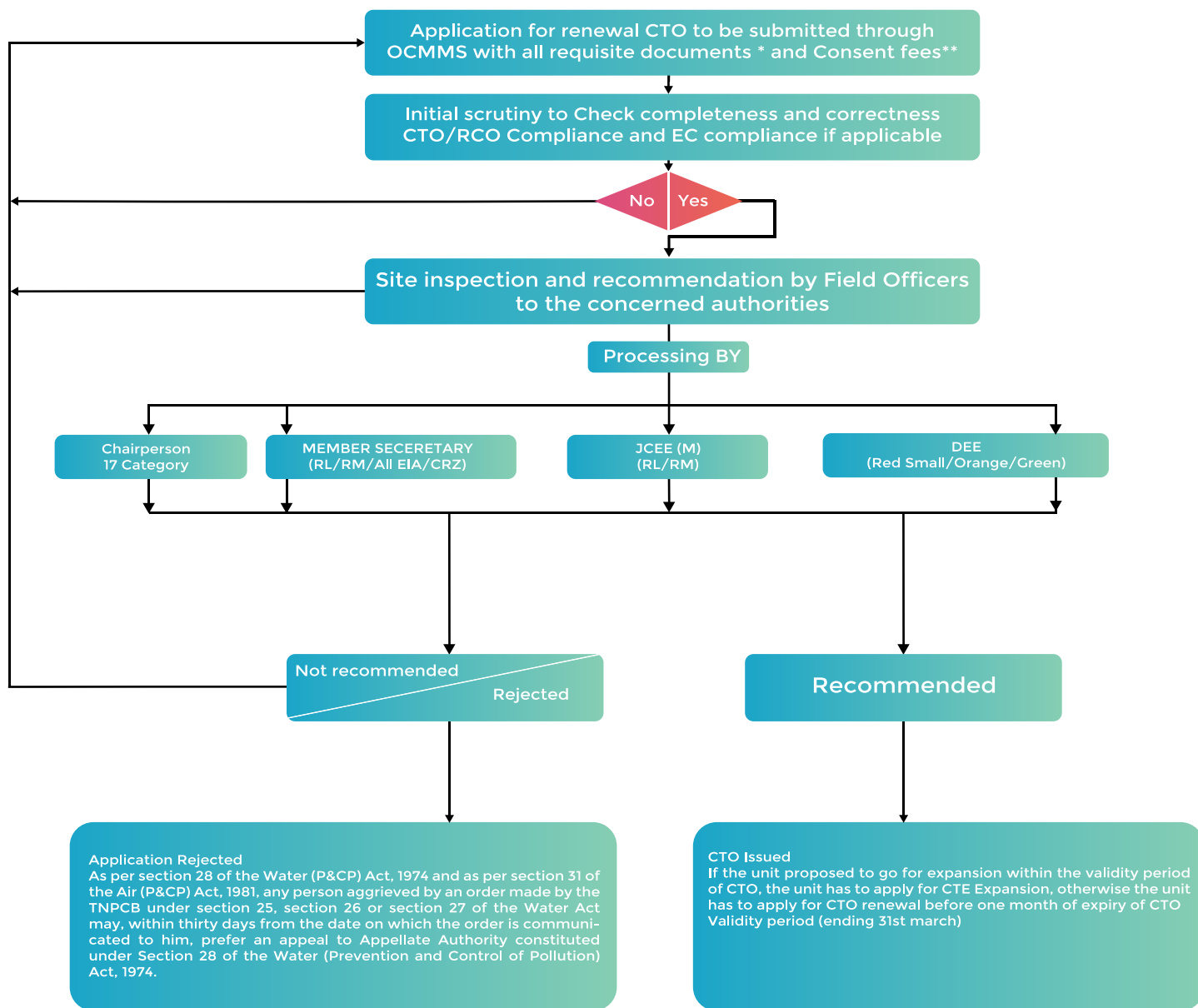
*** FOR CHECKLIST**



****FOR CONSENT FEES**

7.3 RENEWAL OF CONSENT TO OPERATE (RCO) -FLOW CHART

The Industries have to apply for the renewal of consent to operate for the operation of the industry before expiry of the Consent to operate.



- Red- 5 years(5 year fees)
- Orange- 10 years (5 year fees)
- Green-14 years (7 year fees)



* FOR CHECKLIST



**FOR CONSENT FEES

(Source: B.P. Ms. No. 61 dated 23.08.2022 & proceeding No. TNPCB/P&D/21621/2015 dated:22.09.2022)

S. No.	Particulars	17-Category	RL	RM	RS	OL	OM	GL	OS, GM & GS
1	Consent to Establish &Expansion	TSC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
1A.	Consent to Establish - Extension	CCC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
2	Consent to Operate & Expansion	TSC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
3	EIA & CRZ attracted Projects CTE & Expansion	TSC	TSC	CCC	CCC	CCC	CCC	CCC	CCC
3A.	EIA & CRZ attracted Projects CTE - Extension	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC
4	EIA & CRZ attracted Projects CTO & Expansion	TSC	CCC	CCC	CCC	CCC	CCC	CCC	CCC
5	CRZ alone attracting Projects CTE & Expansion	TSC	TSC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
5A.	CRZ alone attracting Projects CTE - Extension	CCC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
6	CRZ alone attracting Projects CTO & Expansion	TSC	CCC	CCC	ZLCCC	ZLCCC	ZLCCC	ZLCCC	DLCCC
7	Consent Renewal	Chairman	MS* JCEE (M)**	JCEE (M)***	DEE	DEE	DEE	DEE	DEE
8	Fresh consent for Name Change, Changes in stack for DG set, Merger of adjacent units without any changes in existing consent.	Chairman	MS* JCEE (M)**	JCEE (M)***	DEE	DEE	DEE	DEE	DEE
		Change in Management, inclusion / alteration of stacks, changes in mode of disposal and all other cases where there is no change in products manufactured, raw material used and production capacity.							
8A	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 Red Large, CCC in the case of Red Medium and ZLCCC in the case of Red Small followed by recommending the project in Board meeting for obtaining G.Os relaxation from Government. After getting the G.O relaxation, CTE will be issued by Chairman in the case of Red Large, Member Secretary in the case of Red Medium and DEE in the case of Red Small.								
9	☒ * for all CRZ and EIA attracting industries and all Red-Large industries except the categories mentioned in Table-IV ☒ ** Red - Large industries for categories mentioned in Table-IV only. ☒ ***Red- Medium industries for categories mentioned in Table-IV only.								

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

(Source : B.P. No. 39, dated 01.06.2013)

Sl. No	Responsibility	17-Category	Red-Large	Red-Medium	Red-Small	Orange-Large	Orange-Medium	Orange Small & All Green
1	Inspection for First Consent & Expansion of CTE & CTO	JCEE(M)	DO	AEE	AEE	AEE	AEE	Jurisdiction AE
2	Renewal Inspection	JCEE(M)	DO	AEE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE
3	Sampling	Jurisdiction AE	AEE	AEE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE
4	Complaint Inspection	JCEE(M)	AEE	AEE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE
5	Hazardous Waste Management	JCEE(M)	DO	AEE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE
6	BMW Inspection	Not applicable	DO	AEE	Jurisdiction AE	Not applicable	Not applicable	Not applicable
7	MSW Inspection	Not applicable	DO	AEE	Jurisdiction AE	Not applicable	Not applicable	Not applicable
8	Court Cases	JCEE(M)	AEE	AEE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE	Jurisdiction AE

DO – District Officer (DEE/AEE – Head of Office)

Note 1: The above table defines the responsibility to the field officers. However Consent Renewal / Hazardous / BMW Inspections and sampling responsibility may be assigned / altered by the concerned District Officer as when required based on the workload / Geographical area and any other circumstances with a view to dispose / process the applications, Renewal consent orders etc.

Note 2: The AEE shall look after all the office works and verifying all the registers and records maintained by the staff. He shall assist the District Officer in all respects such as attending of Collector Office meetings, court cases and inter departmental co-ordination and correspondence. Preparation of agenda for ZLCCC meetings and convener for the DLCCC meetings. He will be the Nodal officer for the computerization activity of the Board.



7.6.1 BAN ON SETTING UP OF HIGHLY POLLUTING INDUSTRIES FROM WATER BODIES

G.O	Orders
G.O. Ms. No. 213, dated 30.3.1989	The Government imposes a total ban on the setting up of the highly polluting industries mentioned in Annexure – I, within 1 km from the embankments of the water sources mentioned in Annexure – II.
G.O. Ms. No. 127, dated 08.05.1998	The Government imposes a total ban on the setting up of the highly polluting industries mentioned in Annexure – I, within 5 km from Cauvery & its tributaries [#] , Pennaiyar, Palar, Vaigai and Thamirabarani

[#]Details of Tributaries and distributaries of Cauvery River furnished by PWD,WRO, Trichy Region vide its letter dated 24.01.2007 is mentioned in Annexure-III

Annexure – I to the G.O. Ms.No. 213, dated 30.3.1989

7.6.2 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 (except Natural Gas / LNG/ CNG /Naphtha / Biomass based power plants, Power plants using dual fuel of biomass & coal upto 25 MW, Power Plants using waste heat recovery boiler without any auxiliary fuel) [Amendment issued vide Letter (Ms). No.85, EC.3/2019, Dated 26.08.2019]
11. Basic Drug Manufacturing Units
12. Pesticide
13. Asbestos
14. Foundries* (exempted from G.O. Ms. No. 127, dated 08.05.1998)

*The Government in Letter (Ms.) No. 93/EC.3/2019, dt. 17.09.2019 issued amendment to G.O. (Ms.) No. 127, Environment and Forests Department, dated 08.05.1998 by exempting the foundry units (new foundry units as well as expansion of existing foundries), subject to certain conditions.

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

7.6.3 LIST OF RIVERS, STREAMS, RESERVOIRS ETC.

	Rivers	Tanks and Reservoirs	Canals
CHENNAI, THIRUVALLUR AND KANCHEEPURAM DISTRICT			
1.	Araniyar	Chembarambakka mTank	Upper Supply Channel (Poondi toCholavaram)
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.	Kiliyar	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.	-	-	Manimukthanandhi 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.	Paminar	-	-
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.	Cheygar	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 Rightbank Canal - Sathanur Reservoir

ANNEXURE-III**7.6.4 DETAILS OF TRIBUTORIES AND DISTRIBUTARIES OF RIVER CAUVERY IN THE JURISDICTION TRICHY REGION, FURNISHED BY PWD,WRO, TRICHY REGION****(A) DETAILS OF TRIBUTARIES OF RIVER CAUVERY IN THE JURISDICTION OF UPPER CAUVERY BASIN CIRCLE, SALEM.7**

1.	Chinnar River (Infall into the Mettur Dam Water Spread at Hogenakkal)
2.	Keserikalihulla (Infall in to the Chinnar River)
3.	Nagavathy (Wall into the Mettur Water spread)
4.	Thoppaiar River (Infall into the Cauvery River at Bhavani)
5.	Bhavani River (Infall into the Mettur Water Spread)
6.	Thirumanimuthar (flows through Salem and Namakkal Districts)
7.	Sarabanga River (Flows through Omalur and Edappadi Taluks)

(B) DETAILS OF TRIBUTARIES OF RIVER CAUVERY IN THE JURISDICTION OF MIDDLE CAUVERY BASIN CIRCLE, TRICHY.20

1.	Noyyal River (In fall into the River Cauvery)
2.	Amaravathy River (In fall into the River Cauvery)

(C) DETAILS OF DISTRIBUTARIES OF RIVER CAUVERY IN THE JURISDICTION OF LOWER CAUVERY BASIN CIRCLE, THANJAVILR.1

Sl.No	Cauvery Sub Basin	Sl.No	Vennar Sub Basin
1.	Cauvery River	23.	Vennar River
2.	Arasalar	24.	Vettar
3.	Kodamurutty	25.	Koraiyar
4.	Nattar	26.	Vadavar
5.	Keerthimanniar	27.	Pamaniar
6.	Noolar	28.	Muliar
7.	Vanjiar	29.	Adappar & Ayyanar
8.	Nandalar	30.	Harichandranathi
9.	Veerasholan	31.	Vellaiyar
10.	Manjalar	32.	Pandavayar
11.	Mahimalaiyar	33.	Shullanar
12.	Manniar	34.	Odambogiar
13.	Palavar and Pudumanniar	35.	Marakkakoraiyar
14.	Vikramanar	36.	Valavoikal, Kaduvayar
15.	Sholasudamaniar	37.	Grand Anicut Canal.
16.	Patharsanar		
17.	Mudicondan River		
18.	Puthar		
19.	Valappar		
20.	Thirumalairajan		
21.	South Rajan		
22.	Kumukkimanniar		

7.6.5 CAUVERY DELTA REGION - PROHIBITION OF CERTAIN NEW INDUSTRIAL ACTIVITIES UNDER THE ENVIRONMENT (PROTECTION) ACT, 1986

In G.O. Ms. No. 21, Environment and Forests (EC.3) 24th February 2020, Tamil nadu Government Prohibits new projects or new activities specified in TABLE II hereunder in the areas specified in TABLE I hereunder:

TABLE I

AREAS
1. Thanjavur district
2. Tiruvarur district
3. Nagapattinam district
4. Kattumannarkoil, Melbhuvanagiri, Keerapalayam, Parangipettai and Kumaratchi blocks of Cuddalore district.
5. Aranthangi, Avudaiyarkoil, Manamelkudi, Tiruvarangulam and Karmbakudi blocks of Pudukottai district

TABLE II

PROJECTS
1. Zinc smelter
2. Iron ore process plant, integrated steel plant and sponge iron plant.
3. Copper Smelter
4. Aluminium Smelter
5. Bone meal, processing of animal horn, hoofs and other body parts.
6. Tannery
7. Exploration, drilling and extraction of oil and natural gas including coal bed methane, shale gas and similar hydrocarbons.
8. Ship breaking industry

7.7.1 NORMS FOR THE LOCATION OF STONE CRUSHING INDUSTRIES

Sl.No	Type of the Unit	B.P no./ MoEF & CC Notification/ NGT Order	Siting Criteria
1.	Stone Crusher (Existing)		
		B.P.Ms.No. 4, dated 02.07.2004	Distance between crusher / cluster of crushers and habitations / NH or SH
	1. Single crusher		50 mts.
	2. 10 crushers		150 mts.
	3. 25 crushers		250 mts.
	4. 50 crushers		300 mts.
	Criteria for new/propped crusher: ◆ No new / proposed stone crushers should be located within 500 metres from any National highways or State highways or inhabited site' or educational institutions and other places of public offices and places of religious importance. ◆ The minimum distance between new / proposed stone crushers should be 1 km to avoid dust polluttional influence of one over the other.		

7.7.2 SITING CRITERIA AND GUIDELINES FOR M-SAND UNIT

2.	Stand alone M- Sand Units	
	<i>B.P.No. 26, dated 30.07.2018</i>  SITING CRITERIA AND GUIDELINES FOR M-SAND UNIT	Distance Criteria
		The boundary of the Stand alone M-Sand units shall be located at 300 meters away from the approved habitations.
		Stand alone M-Sand units shall be located 100 metres away from the boundary of NH/SH.
	There will be no distance criteria between the standalone M-sand units	
Stand alone M-Sand Units located within Stone crushers shall adopt the Criteria under B.P Ms. No. 4, dt. 02.07.2004 and the B.P. Ms.No. 55, dt. 06.10.2005		
Existing consented stone crushing units to go for expansion along with M-sand unit: The existing consented stone crushing units permitted to increase their production along with or without M -sand production unit, to adopt B.P. Ms. No. 4 dated 02.07.2004 (read with B.P. Ms. No. 55 dated 06.10.2005) except 1 KM distance criteria from crusher to crusher.		



7.7.3 GUIDELINES FOR HOT MIX PLANT

Sl.No	Type of the Unit	B.P no./ MoEF & CC Notification/ NGT Order	Siting Criteria
3.	Hot Mix Plants		
	NGT order dated 17.02.2016 in in Application No.10 of 2016  GUIDELINES FOR HOT MIX PLANT	Distance Criteria	
		No hot mix plant allowed within 500 meters from approved habitations/lay out	
		Hot mix plant shall be allowed 200 meters away from national/state highways and distance shall be measured from edge of the metalled road to the physical/administrative boundary of the hot mix plant.	
		In respect of wild life sanctuary/reserve forest/national monuments/air ports/ air strips, hot mix plant shall be established five kilometer away (or) buffer zone declared for the same.	
		There should be at least 250 meters distance between the two hot mix plants boundaries.	
	All existing hot mix plants shall not undertake expansion activity without prior consent of the Board. If the unit applies for expansion, it is to be considered as a proposed industry and recommended siting criteria to be adhered with.		

7.7.4 SITING CRITERIA FOR SOLID/ HOLLOW BRICK MANUFACTURING UNITS

4.	Solid/Hollow Block Manufacturing Units		
	 SITING CRITERIA FOR SOLID/ HOLLOW BRICK MANUFACTURING UNITS	Distance Criteria	
		No New units allowed in residential areas as classified by the competent authorities.	
		Industries shall not be located within a distance of 100 metres around hospitals, educational institutions and courts which has been declared as silence area / zone under the Noise Pollution (Regulation and Control) Rules, 2000.	

7.7.5 SITING CRITERIA FOR READY MIX CONCRETE PLANTS

Sl.No	Type of the Unit	B.P no./ MoEF & CC Notification/ NCT Order	Siting Criteria
5.	Ready Mix Concrete Plants (RMC) plant		
	Proposed Ready Mix Concrete Plants	<i>TNPCB report w.r.t NGT order dated 30.03.2017 in Application No. 24 of 2017</i>  SITING CRITERIA FOR READY MIX CONCRETE PLANTS	Distance Criteria
			No RMC plant permitted within 250 metre from nearby residential area, layouts NH/SH, educational institutions, Religious places and human settlements with population more than 500
			No RMC plant permitted within 5 Km radius from wild life sanctuary/ reserve forest/ national monuments.
			The distance between Two RMC plants should be 250 metre
	Existing Ready Mix Concrete Plants		The minimum land area required for a RMC plant for better operating conditions: (i) Plant capacity <50m ³ /hr – 1 acre (ii) Plant capacity 50 to 100m ³ /hr – 2 acre (iii) Plant capacity >100m ³ /hr – 1 hectare The RMC Plant for captive use should be located within the project site.
			1.) The existing RMC plants which are not meeting the siting criteria shall provide a compound wall / Tin sheet coverage / Barricades to a height of 20 feet all around the periphery of the unit premises. 2.) All existing RMC Plants shall not undertake expansion activity without prior consent of the board. If any unit apply for consent of the board for expansion activity, it is considered as a proposed industry and recommended citing criteria to be adhered with.

7.7.6 SITING CRITERIA FOR CHARCOAL UNITS

6.	Charcoal Units		
	B.P.No.65,dated 22.08.2022 For proposed units  SITING CRITERIA FOR CHARCOAL UNITS	Distance Criteria	
		No charcoal manufacturing units allowed within 1 km from approved habitation/layouts	
		Proposed unit shall be allowed from 500 mts from NH/SH	
		No units shall be allowed in declared wildlife sanctuary/reserve forest and buffer zones	
		At least 1 Km between Two Charcoal manufacturing units	
		Note: In case of the existing Carbon manufacturing units undertaking backward integration of Charcoal manufacturing (By adopting continuous process) will not be insisted for siting criteria, however, APC measures, fugitive emission control, standard for charcoal units, green belt development and other requirements shall be fulfilled	

7.7.7 SITING CRITERIA FOR BRICK KILN UNITS

Sl.No	Type of the Unit	B.P no./ MoEF & CC Notification/ NGT Order	Siting Criteria
	Brick Kilns		
7.	MoEF & CC Notification, dated 22.02.2022  SITING CRITERIA FOR BRICK KILNS	Distance Criteria	
		Brick kiln should be at 0.8 Km from habitation or fruit orchards.	
		Brick kilns shall be established at a minimum distance of 1 Km from existing Brick kilns.	

7.7.7 SITING CRITERIA FOR SEWAGE TREATMENT PLANTS

8.	Sewage Treatment Plants		
	Circular Memo No. T 16/ 25323/STP/Orange/2007-4, dated 23.10.2008	Distance Criteria	
		Distance between STP site and any lake or pond.	Should be more than 250 metres
		Distance between STP site and river or stream.	Should be more than 250 metres
		STP site to be located at a distance of more than 500 mts away from notified habitated area and zone of 100 m around STP site boundary to be declared as "No development Zone"	
		Distance between STP site and public utility area such as park, temple, educational institution etc.,	Should be more than 500 metres
		The site of STP should be selected on dry lands and the treated sewage shall be utilized on land for irrigation	

CHAPTER 8

MISCELLANEOUS



CHAPTER 8

MISCELLANEOUS

8.1

SCHEDULE OF SAMPLING AND ANALYSIS CHARGES FOR ENVIRONMENTAL SAMPLES IN TNPCB LABORATORIES

8.1.1 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:

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

- 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.

8.1.2 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 (Filter Paper)	300
	(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^+ , NH_4^+ , 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)fluoranthene	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 Streptococci (MFT Technique)	450
9	Faecal Streptococci (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, Palladium, Phosphorous, Potassium, Rubidium, Rutherfordium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur, Tellurium, Tin, Titanium, Tungsten, Vanadium, Ytterbium and Zinc per sample	4000
14	Magnesium	300
15	Mechanical soil analysis (Soil texture)	150
16	Nitrate	300
17	Nitrite	300
18	Nitrogen available	350

19	Organic carbon/Matter (chemical method)	350
20	Polycyclic Aromatic Hydrocarbon (PAHs)	As mentioned in respective group at clause 5.0
21	Polychlorinated Biphenyls (PCBs)	As mentioned in respective group at clause 5.0
22	Pesticides	As mentioned in respective group at clause 5.0
23	pH	100
24	Phosphorous (available)	400
25	Phosphate (Ortho)	300
26	Phosphate(Total)	400
27	Potash available	200
28	Potassium	300
29	Sodium Absorption Ratio (SAR) in soil extract	650
30	Sodium	300
31	Soil Moisture	100
32	Sulphate	200
33	Sulphur	350
34	Total Kjeldahi Nitrogen	400
35	Total Organic Carbon (TOC)	550
36	Total water soluble salts	200
37	Water holding capacity	100

Note:

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

(6) ANALYSIS CHARGES OF SOIL SAMPLES/SLUDGE/SEDIMENTS/SOLID 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

8.2 CARE AIR CENTRE

TNPCB established Care Air Centre at Corporate Office, Chennai. This centre monitors the ambient air quality and source emissions of the industries in the State on 24x7 basis through online. PM10, PM2.5, NO, NO2, NOx and other industry specific parameters are monitored on continuous basis. The 17 category highly polluting industries, Red-large industries, Common Effluent Treatment plants, common hazardous waste incinerator facilities, common bio-medical waste treatment facilities are connected to this centre.

8.3 WATER QUALITY WATCH CENTRE

TNPCB has established Water Quality Watch Centre at Corporate Office. In order to monitor the quality of treated effluent at the outlet of the treatment plant on continuous 24x7 basis through online. The parameters monitored are Flow, TDS, pH, BOD, COD, TSS and other industry specific parameters. The 17 category highly polluting industries, Red-large industries and Common Effluent Treatment plants are connected to this centre.

8.4 ENVIRONMENTAL COMPENSATION

- Environmental compensation is a policy instrument for the protection of the environment which works on the "Polluter Pay Principle". Environmental compensation has already been implemented in various countries, although limited in scope. Experiences from these implementations are mixed and tend to stress the importance of certain principles in order to achieve the overall objective of protection of the environment.
- Overall objective of imposing environmental compensation is to develop self- sense of responsibility towards the environment and to make defaulters realize their mistake by imposing compensation, which will be utilized for the protection/restoration of the environment.

8.4.1 ENVIRONMENTAL COMPENSATION TO BE LEVIED ON INDUSTRIAL UNITS

Environmental compensation is based on "Polluter Pay Principle". Instances for taking cognizance of cases fit for violation and levy environmental compensation

Cases considered for levying Environmental Compensation (EC):

- a. Discharges in violation of consent conditions, mainly prescribed standards / consent limits.
- b. Not complying with the directions issued, such as direction for closure due to non- installation of OCEMS, non-adherence to the action plans submitted etc.
- c. Intentional avoidance of data submission or data manipulation by tampering the Online Continuous Emission / Effluent Monitoring systems.
- d. Accidental discharges lasting for short durations resulting into damage to the environment.
- e. Intentional discharges to the environment -- land, water and air resulting into acute injury or damage to the environment.
- f. Injection of treated/partially treated/ untreated effluents to ground water.

1.1 In the instances as mentioned at a, b and c above, Pollution Index may be used as a basis to levy the Environmental Compensation. CPCB has published guidelines for categorization of industries into Red, Orange, Green and White based on concept of Pollution Index (PI). The Pollution Index is arrived after considering quantity & quality of emissions / effluents generated, types of hazardous wastes generated and consumption of resources. Pollution Index of an industrial sector is a numerical number in the range of 0 to 100 and can be represented as follows:

PI = f (Water Pollution Score, Air Pollution Score and hazardous waste generation score)

Pollution Index is a number from 0 to 100 and increasing value of PI denotes the increasing degree of pollution hazard from the industrial sector.

The concept of Pollution Index, shall be used for calculating Environmental Compensation. This may help in implementation of such provision throughout the country, a successful initiative in vital field of industrial pollution control.

Formula for levying the Environmental Compensation in instances as mentioned at a, b and c including non-compliance of the environmental standards / violation of direction.

The Environmental Compensation shall be based on the following formula:

$$EC = PI \times N \times R \times LF$$

Where,

EC is Environmental Compensation in ₹

PI = Pollution Index of industrial sector

N = Number of days of violation took place

R = A factor in Rupees (₹) for EC

S = Factor for scale of operation

LF = Location factor

The formula incorporates the anticipated severity of environmental pollution in terms of Pollution Index, duration of violation in terms of number of days, scale of operation in terms of micro & small / medium / large industry and location in terms of proximity to the large habitations.

Note:

- The industrial sectors have been categorized into Red, Orange and Green, based on their Pollution Index in the range of 60 to 100, 41 to 59 and 21 to 40, respectively. Average pollution index of 80, 50 and 30 may be taken for calculating the Environmental Compensation for Red, Orange and Green categories of industries, respectively.
- N, number of days for which violation took place is the period between the day of violation observed / due date of direction's compliance and the day of compliance verified by CPCB / SPCB / PCC.
- R is a factor in Rupees, which may be a minimum of 100 and maximum of 500. It is suggested to consider R as 250, as the Environmental Compensation in cases of violation.
- S could be based on small / medium / large industry categorization, which may be 0.5 for micro or small, 1.0 for medium and 1.5 for large units.
- LF could be based on population of the city / town and location of the industrial units. For the industrial units located within municipal boundary or up to 10 km distance from the municipal boundary of the city / town, following factors (LF) may be used.

S. No.	Population* (million)	Location Factor#(LF)
1	1 to <5	1.25
2	5 to <10	1.5
3	10 and above	2.0

*Population of the city/town as per the latest Census of India

#LF will be 1.0 in case unit is located >10km from municipal boundary

LF is presumed as 1 for city/town having population less than one million.

For notified Ecologically Sensitive areas, for beginning, LF may be assumed as 2.0.

For notified Ecologically Sensitive areas, for beginning, LF may be assumed as 2.0.

- f) In any case, minimum Environmental Compensation shall be ₹ 5000/day.
 - g) In order to include deterrent effect for repeated violations, EC may be increased on exponential basis, i.e. by 2 times on 1st repetition, 4 times on 2nd repetition and 8 times on further repetitions.
 - h) If the operations of the industry are inevitable and violator continues its operations beyond 3 months then for deterrent compensation, EC may be increased by 2, 4 and 8 times for 2nd, 3rd and 4th quarter, respectively. Even if the operations are inevitable beyond 12 months, violator will not be allowed to operate.
 - i) Besides EC, industry may be prosecuted or closure directions may be issued, whenever required.
- 1.2 In other instances, i.e d,e & f, the environmental compensation may contains two parts - one requires providing immediate relief and other long term measures such as remediation. In all these case detailed investigations are required from expert institutions or organizations based on which environmental compensation will be decided.

8.4.2 ENVIRONMENTAL COMPENSATION FOR HEALTH CARE FACILITIES (HCFS)

The following cases have been considered for levying Environmental Compensation:

- i. No Authorization under Bio Medical Waste Management Rules, 2016
- ii. No arrangement with Common Biomedical Waste Treatment Facilities for disposal of biomedical waste
- iii. Improper Segregation of generated biomedical waste as per color coded system prescribed under Bio Medical Waste Management Rules, 2016
- iv. No facility for pre-treatment of yellow (h) category waste (microbiology, biotechnology and other clinical laboratory waste)
- v. Storage facility not provided for segregated biomedical waste (applicable for bedded hospitals)
- vi. Not provided Effluent Treatment Plant for treatment of wastewater, in case when city sewerage network is not connected to terminal Sewage Treatment Plant and
- vii. Non-compliance to other responsibilities as stipulated for Health Care Facilities under Bio-Medical Waste Management Rules, 2016.

Environmental Compensation for Health Care Facilities = $HR \times T \times S \times R \times N$

Where,

HR - Health Risk factor

T - Type of Health care Facility

S - Size of Health Care Facility

R - Environmental Compensation factor

N - Number of days of Violation

- ❖ Health Risk (HR) is a number from 0 to 100 and increasing HR value denotes the increasing degree of health risk due to improper handling of Bio -Medical Wastes in health care facility.

	No arrangement for disposal of BMW with CBMWTF (1)	Not applied For Authorization (2)	Improper Segregation (3)	No pre-Treatment (4)	On-site storage not provided or not adequate (5)	No ETP despite requirement (6)	Score for each of other violation of BMW Rules, 2016 (7)
Health Risk Score	30	10	20	10	10	15	5

(Note: Score of 5 to be added for each of other violations at column (7), with sum of HR limited to 100)

Health Risk is sum of (1) + (2) + (3) + (4) + (5) + (6) + (7) [restricted to 100]

- ❖ T is a factor for type of health care facility, as given below:

Type of Health Care facility	T Factor
Bedded Hospitals	1.0
Bedded Ayush Hospitals	0.5
Non-bedded (Veterinary hospital, pathological laboratory, blood bank)	1.0
Non-bedded (Clinic, dispensary and clinical establishment)	0.5
Animal Test Houses	1.0

- ❖ S is a factor for size of Health Care Facility-based on number of beds of the Health Care Facility, as given below:

Size of Health Care Facility	S factor
Non-bedded (Clinic, dispensary and clinical establishment)	0.15
Non-bedded (Veterinary hospital, pathological laboratory, blood bank)	0.2
1 to 10 bedded HCFs	0.20
10 to 50 bedded HCFs	0.30
50 to 100 bedded HCFs	0.50
100 to 500 bedded HCFs	1.00
500 or more bedded HCFs	1.50
Animal Test House	1.00

- ❖ N is the Number of days for which violation took place is the period between the day of violation observed / due date of implementation as per Bio-Medical Waste Management Rules, 2016 / due date of compliance of directions and the day of compliance verified by Central Pollution Control Board / Tamil Nadu Pollution Control Board.
- ❖ R is a factor in Rupees, taken as 250.
Further in any case minimum Environmental Compensation in respect to Health Care Facility shall not be less than Rs.1200/- per day.

DETERRENT FACTOR FOR HEALTHCARE FACILITIES

In order to make scale of environmental compensation deterrent in rendering violation of Rules to be non-profitable, a deterrent factor has been introduced in case of recurrent violations. Environmental Compensation Charges may increase by multiple times when:

- Health Care facility fails to comply with action points within stipulated time as directed by Tamil Nadu Pollution Control Board; or
- Fails to comply during re-inspections

INCREMENTAL EFFECT ON ENVIRONMENTAL COMPENSATION CHARGES ARE GIVEN BELOW:

Scenario	Applicable Environmental Compensation Charges (ECC)
Upto 15 days from target date	Original ECC
Between 15 to 30 days beyond target date	Two times
Fails to comply in 2nd inspections new violations	Two times
Between 30 to 45 days beyond target date	Four times
Fails Fails to comply in 3rd inspections including new violations if any	Four times
Beyond 60 days from target date	Closure of HCF
Fails to comply in 4th consecutive inspection	Closure of HCF.

8.4.3 ENVIRONMENTAL COMPENSATION FOR COMMON BIOMEDICAL WASTE TREATMENT FACILITY (CBWTF)

The following cases have been considered for levying Environmental Compensation for Common Biomedical Waste Treatment Facilities: -

- Incinerator emissions not complying with standards notified under Biomedical Waste Management Rules, 2016
- Treated waste water not complying with standards prescribed under Biomedical Waste Management Rules, 2016
- Not complying with standards of autoclave / microwave prescribed under Biomedical Waste Management Rules, 2016
- Not collecting the biomedical waste from all the member Health Care Facilities timely; and
- Other violations to the conditions stipulated under Biomedical Waste Management Rules, 2016/Central Pollution Control Board guidelines

Environmental Compensation for Common Biomedical Waste Treatment Facilities = PI x S x R x N

Where,

PI- Pollution Index

S - Size of Operation

R - Environmental Compensation factor

N - Number of days of Violation

- ❖ Pollution Index (PI) is a number from 0 to 100 and increasing value of PI denotes the increasing degree of pollution hazard from CBWTF

Cases	Incinerator emissions not complying with standards notified under BMWM Rules, (1)	Treated waste water not complying with standards notified under BMWM Rules, (2)	Not complying with standards of autoclave / microwave notified under BMWM Rules, 2016 (3)	Biomedical waste not collected and Disposed off within 48 hours (4)	Each of Other violations to BMWM Rules, 2016 / CPCB Guidelines (5)
Pollution Index	20	15	15	10	10

Note:

Score of 10 can be added at column (5) for each of other violations, provided sum of PI is limited to 100

Pollution Index = (1) + (2) + (3) + (4) [Restricted to 100]

- ❖ Scale of operation for Common Biomedical Waste Treatment Facilities will be taken from following Table :

Authorized Treatment Capacity (Based on Incinerator size)	Scale Factor
Upto 100 Kg/hr	0.25
100 to 250 Kg/hr	0.50
250 to 500 Kg/hr	1.00
> 500 Kg/hr	1.50

❖ R is a factor in Rupees, which is taken as 250

❖ N is the Number of days for which violation took place is the period between the day of violation observed/due date of implementation as per Biomedical Waste Management Rules, 2016/due date of compliance of directions and the day of compliance verified by Central Pollution Control Board/Tamil Nadu Pollution Control Board.

Further, in any case minimum Environmental Compensation in respect to Common Biomedical Waste Treatment Facility shall not be less than Rs. 3,000/- per day.

For Health Care facilities having their own treatment and disposal facility, the environmental compensation shall be calculated as in the case of Common Bio-Medical Waste Treatment Facilities.

DETERRENT FACTOR FOR COMMON BIOMEDICAL WASTE TREATMENT FACILITIES

In order to make scale of environmental compensation deterrent for Common Bio-Medical Waste Treatment Facilities (CBWTFs) to make non-compliance as not profitable, a deterrent factor has been introduced for repeated violations. Environmental Compensation Charges may increase by multiple times when:

- Common Bio-Medical Waste Treatment Facility(CBWTF) fails to comply with action points within stipulated time as directed by Central Pollution Control Board /Tamil Nadu Pollution Control Board
- Fails to comply during re-inspections Incremental effect on Environmental compensation charges are given below:

Scenario	Applicable Environmental Compensation Charges
Upto 30 days from target date	Original ECC
Between 30 to 60 days beyond target date	Two times
Fails to comply in 2nd inspections new violations if any	Two times
Between 60 to 90 days beyond target date	Four times
Beyond 90 days	Closure of CBWTF
Fails to comply in 3 rd consecutive inspection	Closure of CBWTF

8.5 SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs) are an inter-governmental agreed set of targets relating to international development to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. SDGs cover 17 goals and 169 targets as resolved in the UN Summit held in September 2015. India is a signatory of the 2030 Agenda, committed to achieve SDGs.

The Goals, Targets and Indicators related to TNPCB and the present status are as follows:

Goal	Target	Indicator
	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated waste water and substantially increasing recycling and safe use globally	6.3.2 Percentage of industries (17 category of highly polluting industries / grossly polluting industry / red category of industries) complying with waste water treatment as per CPCB norms 99% of the industries are complying with the waste water treatment norms
	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.	9.4.1a Number of air quality monitoring stations 87 air quality monitoring stations are located in the State of Tamil Nadu (52 stations under National Air Quality Monitoring Programme + 34 Continuous Ambient Air Quality Monitoring Stations (CAAQMS) + 1 mobile CAAQMS).
	12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.2 Quality monitoring by introduction of monitoring stations across the State 87 ambient air quality monitoring stations are functioning in the State of Tamil Nadu (52 stations under National Air Quality Monitoring Programme + 34 Continuous Ambient Air Quality Monitoring Stations (CAAQMS) + 1 mobile CAAQMS). 194 water quality monitoring stations are functioning in the State of Tamil Nadu. (113 stations under National Water Monitoring Programme + 64 stations under National River Conservation Programme + 17 stations under Chennai City Waterways Monitoring Programme). 10 ambient noise monitoring stations are functioning in Chennai city. 6 polluted river stretches are identified in the State of Tamil Nadu (Sarabanga, Vasista, Thirumanimutharu, Bhavani, Cauvery and Thamirabharani). 4 non attainment cities are identified in the State of Tamil Nadu (Chennai, Tricy, Tuticorin and Madurai) 33 CETPs are functioning in the State of Tamil Nadu (12 CETPs for tanneries, 19 for textiles and 2 for electroplating units) 30 CETPs are adopting ZLD systems in the State of Tamil Nadu

Goal



Target

13.3 Improve education, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Indicator

13.3.2 Strengthening of institutional, systemic and individual capacity building to implement adaption, mitigation and technology transfer and development actions in the State

92 environmental training programmes have been conducted
863 members have benefitted from the training programmes.

196 public awareness programmes have been conducted during festival seasons



THANK YOU

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