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# **Implementation Guidelines for E-Waste (Management) Rules, 2016**

**Central Pollution Control Board, Delhi**

**Abbreviations**

<b>BFR</b>	-	<b>Brominated Flame Retardants</b>
<b>CCC</b>	-	<b>Common Collection Centres</b>
<b>CFC</b>	-	<b>Chloro Fluro Carbon</b>
<b>CPCB</b>	-	<b>Central Pollution Control Board</b>
<b>CRT</b>	-	<b>Cathode Ray Tube</b>
<b>DRS</b>	-	<b>Deposite Refund Scheme</b>
<b>EEE</b>	-	<b>Electrical Electronic Equipments</b>
<b>End of Life</b>	-	<b>End of Life</b>
<b>EPR</b>	-	<b>Extended Producer Responsibility</b>
<b>EPR</b>	-	<b>Extended Producer Responsibility</b>
<b>EST</b>	-	<b>Environmentally Sound Technology</b>
<b>HCFC</b>	-	<b>Hydro Chloro Fluro Carbon</b>
<b>HW (M)</b>	-	<b>Hazardous Waste (Management)</b>
<b>IT&amp; TE</b>	-	<b>Information Technology &amp; Telecommunication Equipments</b>
<b>LCD</b>	-	<b>Liquid Crystal Display</b>
<b>LED</b>	-	<b>Light Emitting Diode/Device</b>
<b>MoEF</b>	-	<b>Ministry of Environment &amp; Forests</b>
<b>MT</b>	-	<b>Metric Tonne</b>
<b>NGOs</b>	-	<b>Non-Governmental Organisation</b>
<b>P &amp; C</b>	-	<b>Prevention &amp; Control</b>
<b>PCB</b>	-	<b>Printed Circuit Board</b>
<b>PCBs</b>	-	<b>Polychlorinated Biphenyls</b>
<b>PCC</b>	-	<b>Pollution Control Committees</b>
<b>PCTs</b>	-	<b>Polychlorinated Terphenyls</b>
<b>PRO</b>	-	<b>Producer Responsibility Organization</b>
<b>PWB</b>	-	<b>Printed Wire Board</b>
<b>RoHS</b>	-	<b>Reduction of Hazardous Substances</b>
<b>RWAs</b>	-	<b>Resident Welfare Associations</b>
<b>SPCB</b>	-	<b>State Pollution Control Board</b>
<b>TIN</b>	-	<b>Taxpayer Identification Number</b>
<b>TSDf</b>	-	<b>Treatment, Storage &amp; Disposal Facility</b>

## INDEX

Chapter	Content	Page No.
1.0	Introduction	1
2.0	Guidelines for Extended Producer Responsibility	2
2.1	Guidelines for Preparing EPR Plan	2-4
2.2	Guidelines for filling of application for EPR authorization	4-5
3.0	Guidelines for Collection and Storage of E-waste	6-7
4.0	Guidelines for Collection Centre of E-waste	8
4.1	Facilities of Collection Centres	8-9
5.0	Guidelines for Channelization including transportation of E-waste	10-11
6.0	Dismantler	12
6.1	Dismantling process	12-14
6.2	Space requirement for Dismantler	14
7.0	Recyclers	15
7.1	Recycling process	15-17
7.2	Recycling of CRT Monitor and TVs	17-18
7.3	Space requirement for Recyclers	18
	List of Annexure	
1.	Annexure – I Form 1 of e-waste rules 2016	19-22
2.	Annexure – II Applicability of Rules	23
3.	Annexure – III Definitions as given in the rules	24-27
4.	Annexure-IV Responsibility of Producer	28
5.	Annexure – V Responsibility of Collection centres	29
6.	Annexure – VI (i) Responsibility of Dismantler (ii) Regulatory requirement for Dismantles	30-31
7.	Annexure – VII (i) Responsibility of Recycler (ii) Regulatory requirement for Recycler	32-33

## **Guidelines for environmentally sound management of E-Waste**

**[As per E-Waste Management) Rules, 2016]**

### **1.0 Introduction**

E- Waste (Management & Handling) Rules, 2011 was notified in 2011 and had come into force since 1st May, 2012. These rules are applicable to every producer, consumer or bulk consumer, collection centre, dismantler and recycler of e-waste involved in the manufacture, sale, purchase and processing of electrical and electronic equipment or components specified in schedule – I of these Rules. Two categories of end of the life electrical and electronic equipment namely (i) IT and Telecommunication Equipment and (ii.) Consumer Electricals and Electronics such as TVs, Washing Machines, Refrigerators Air Conditioners and Fluorescent and other mercury containing lamps are covered under these Rules. The main feature, of these rules, is Extended Producer Responsibility (EPR).

In order to ensure effective implementation of EPR by producers and to increase their role, in effective management of E-Waste, MoEF & CC, Govt has notified the E-Waste (Management) Rules, 2016 vide G.S.R. 338(E) dated 23.03.2016 which will be effective from 01-10-2016.

Target based approach for implementation of EPR has been adopted in the **E-Waste (Management) Rules, 2016**. Phase wise collection target has been fixed for producers for the collection of e-waste, which can be either in number or weight and shall be 30% of the quantity of waste generation as indicated in EPR Plan during first two year of implementation of rules followed by 40% during third and fourth years, 50% during fifth and sixth years and 70% during seventh year onwards.

Under the E-Waste (Management) Rules, 2016 CPCB has been mandated to prepare guidelines on extended producer responsibility, environmentally sound dismantling and recycling, collection centres, storage, refurbishment, channelisation, transportation and random sampling for RoHS testing. In this document all the above guidelines have been compiled except guidelines on refurbishing and random testing for RoHS parameters. Each guideline is coming as a chapter in this document. In this document, applicability of rules, definitions, responsibility of Producers, Collection Centre, Dismantler and Recyclers are given in Annexures.

## 2.0 Guidelines for Extended Producer Responsibility

- Extended Producer Responsibility (EPR) is the responsibility of any producer of electrical and electronic equipment (EEE) for collection and channelisation of e-waste from end of life product to an authorised dismantler/recycler
- A producer can implement its EPR either through take back system and/or by setting up collection centres or both for channelisation of e-waste from end of life products to authorised dismantlers/recyclers.
- The producers are required to have arrangements with authorised dismantlers/recyclers either individually or collectively or through a Producer Responsibility Organisation spelt out by the producer in its EPR Plan which is duly approved by Central Pollution Control Board (CPCB) in producer's EPR authorisation.
- EPR authorisation is mandatory and has to be obtained by all the producers including importers, e-retailers/on line sellers/e-bay etc. in respect of EEE as listed in schedule – I of E-Waste (Management) Rules, 2016.
- Selling or placing of EEE in the market by any producer without EPR Authorisation shall be considered as causing damage to the environment. Action as envisaged under E (P) Act, 1986 shall be taken against the producers who operate without EPR authorisation.

### 2.1 Guidelines for preparing Extended Producer Responsibility Plan (EPR- Plan)

EPR Plan is an implementation plan of the producers where the producers give its overall scheme to full fill its Extended Producer Responsibility obligations for achieving targets and detailed out his mechanism for collection and channelisation of e-waste generated by him in the current year.

1. The producer may estimate generation of e-waste code wise from his end of life products.

- The generation of e-waste by each of the producers has to be estimated on the basis of quantity of EEE, product code wise, placed in the market in the previous years and taking into consideration the average life of the equipment
- The generation of e-waste from end of life products may be calculated as given below:
  - ❖ Any producer while applying for EPR authorisation shall use the following formula for estimation of E- Waste generation:

$$\begin{aligned} &\text{e-waste generation (weight/number) in year 'x'} \\ &= \text{Sales in '(x-z)' years previously} \times \text{weight/number} \\ &\quad (z = \text{average life span of EEE}) \end{aligned}$$

# DRAFT

Average life of the EEE to be used in the above formula is given below:

Sr. No.	Categories of electrical and electronic equipment	EEE Code	Average Life
i.	<b>Information technology and telecommunication equipment</b>		
	Centralized data processing:	ITEW1	
	Mainframe		10 Years
	Minicomputer		5 Years
	Personal Computing: Personal Computers (Central Processing Unit with input and output devices)	ITEW2	6 Years
	Personal Computing: Laptop Computers (Central Processing Unit with input and output devices)	ITEW3	5 Years
	Personal Computing: Notebook Computers	ITEW4	5 Years
	Personal Computing: Notepad Computers	ITEW5	5 Years
	Printers including cartridges	ITEW6	10 Years
	Copying equipment	ITEW7	8 Years
	Electrical and electronic typewriters	ITEW8	5 Years
	User terminals and systems	ITEW9	6 Years
	Facsimile	ITEW10	12 Years
	Telex	ITEW11	5 Years
	Telephones	ITEW12	9 Years
	Pay telephones	ITEW13	9 Years
	Cordless telephones	ITEW14	9 Years
	Cellular telephones	ITEW15	
	Feature phones		10 Years
	Smart phones		7 Years
	Answering systems	ITEW16	5 Years
ii.	<b>Consumer electrical and electronics:</b>		
	Television sets (including sets based on (Liquid Crystal Display and Light Emitting Diode technology)	CEEW1	9 Years
	Refrigerator	CEEW2	10 Years
	Washing Machine	CCEW3	9 Years
	Air-conditioners excluding centralized air conditioning plants	CCEW4	11 Years
	Fluorescent and other Mercury containing lamps	CEEW5	-----

2. Details of collection and storage as per the guidelines for 'collection and storage of e-waste'.
3. Details of channelisation system as per the guidelines for 'channelisation of e-waste'.
4. Details of name and location of collection centres. Producer should have enough numbers of collection centres for depositing/returning quantum of e-waste as estimated above.\

5. If a collection centre is being used by many producers then name of all other producers may be provided.
6. Details of facilities of collection centres as per the guidelines for collection centres.
7. Details of incentive scheme for returning of e-waste by consumers/bulk consumers
8. Details of dealers, buy-back arrangements, take back systems, exchange scheme for channelisation of e-waste.
9. If producer is going to manage its EPR responsibility through PRO then details of PRO's organisational structure and system of collection and channelisation to the authorised dismantlers/recyclers of e-waste.
10. If producer is planning 'deposit refund scheme' (DRS) or exchange scheme for collection channelisation of end-of-life products to authorised dismantlers or recyclers then the details thereof.
11. Details of mode of refund of the deposited amount taken from the consumer or bulk consumer at the time of sale has to be given along with interest at the prevalent rate for the period of the deposit at the time of take back of the end-of life products.
12. Details of name, location, processing capacity, facilities of authorised dismantlers/recyclers which are part of EPR along with copy of authorisation issued by concerned SPCBs/PCCs.
13. The details provided above should be commensurate with the quantum of e-waste estimated and collection targets.

## **2.2 Guidelines for filing of application for Extended Producer Responsibility Authorisation (EPR – Authorisation)**

Every producer of EEE listed in schedule I has to apply in form 1 to the Member Secretary, CPCB for seeking EPR Authorisation within a period of ninety (90) days starting from the date of these rules coming into force. In case of renewal of EPR Authorisation, the application to CPCB has to be made before one hundred and twenty (120) days of its expiry. Producers, while applying for grant or renewal of EPR Authorisation, have to provide following information in the said application:

- i. Detailed addresses, telephone numbers, e-mail and other contact details of the place from where sale in entire country is being managed.
- ii. Name and full address with e-mail and telephone number of authorised person.
- iii. In case the producer is going to manage its EPR through PRO then detailed addresses, telephone numbers, e-mail and contact details of that PRO.

## DRAFT

- iv. Quantity (number and weight) of EEE code wise placed on market year-wise during the last 10 years in the format as given form 1 of rules 2016. (Annexure – I)
- v. Estimated generation of e-waste item-wise and estimated collection target for the forthcoming year including those being generated from their service centres in the format as given form 1 of rules 2016. (Annexure – I)
- vi. EPR Plan as per the guidelines for preparing EPR Plan.
- vii. Estimated budget earmarked for Extended Producer Responsibility (EPR) and allied initiatives for creating awareness of consumers/bulk consumers
- viii. Copies of agreement document with dealers, collection centres, dismantlers, recyclers, treatment, storage and disposal facilities (TSDFs) etc.
- ix. Details of proposed awareness programmes.
- x. Details of Reduction of Hazardous Substances compliance in terms of self declaration
- xi. Technical documents (supplier declaration- description of product, document for materials, parts, and/or sub assemblies and analytical test result as per EN 50581 of EU)
- xii. Copy of the permissions/licences from the relevant ministry/department for selling their product or for doing their business
- xiii. TIN details
- xiv. Copy IEC code in case of importers
- xv. Copy of earlier Extended Producer Authorisation issued by the SPCBs/PCCs in case of those producers who are operating in the country prior to 01-10-2016.



### 3.0 Guidelines for Collection and Storage of E-Waste

- After assessing their collection requirement of e-waste Producers may device a collection mechanism which may include take back through dealers, collection centres or directly through authorised dismantlers/recyclers
  - For collection of e-waste producer may take help of any professional agency like Producer Responsibility Organisation (PRO).
  - Producer may manage a system directly or with a help of any professional agency like PRO on his behalf for collection of e-waste by involving relevant stakeholders such as consumer, bulk consumer, informal sector, resident associations, retailers and dealers, etc.
  - Producer may also have an arrangement of collection of e-waste from individual and bulk consumers as well.
  - The producer may publicize their collection system which may include details of their collection points, bins and collection vans linked to collection centres or take back system, deposit refund scheme, e-waste exchange, retailers/dealers and PRO etc. for making collection system effective and workable.
  - If take back system is being provided then it should be accessible to any citizen located anywhere in the country.
  - The take-back system so provided may be through their retailers/dealers or through service centres and may have collection points or bins or drop-off points linked to their authorised collection centres.
- (i) The producers may provide following details of take back system:
- a. Link of their web site where information pertaining to take back system is available
  - b. Toll free number to be available during working hours (10 A.M. to 6 P.M.) for consumers/bulk consumers
  - c. Details of their dealers, retailers, collection points/bins/pick up vans linked to collection centres for depositing of e-waste by the consumer/bulk consumers if they are part of the take back system
  - d. Details of any incentive scheme for consumers/bulk consumer for returning of e-waste
  - e. Phone number/mobile numbers of grievance redressal in case, toll free number is not working
  - f. Details of authorised dismantlers/recyclers who can take back e-waste on behalf of the producer if dismantlers/recyclers are part of take back system

## DRAFT

- Producers may maintain data base of consumer while selling EEE so that consumers/ bulk consumers can be approached for collection of any e-waste from end of life products.
- Every producer, collection centre, dealer, dismantler and recycler may store the e-waste for a period not exceeding one hundred and eighty (180) days and shall maintain a record of collection, sale, transfer and storage of wastes and make these records available for inspection. The period of storage of one hundred and eighty (180) days may be extended by the concerned SPCBs/PCCs up to three hundred and sixty-five (365) days in case the e-waste needs to be specifically stored for development of a process for its recycling or reuse.
- Storage of end of life equipment may be done in a manner which does not lead to breakage of such equipment and safe to workers handling such equipment.

#### 4.0 Guidelines for Collection Centre of E-Waste

- (i) Collection Centre may collect and store e-waste, on behalf of producer / dismantler / recycler / refurbisher, and sent such waste to authorised dismantlers / recyclers / identified by the producer in case of collection on behalf of producers.
- (ii) Only those collection centres may operate which are part of EPR-Authorisation of the producers or established by Dismantlers / recyclers / refurbishers.
- (iii) Collection Centres operating on behalf of many producers then all such producers provide this information in their EPR application.
- (iv) Collection centres has to collect e-waste either on behalf of producer or dismantler or recycler or refurbisher including those arising from orphaned products. Collection centres established by producers/PRO can also collect e-waste on behalf of dismantler, refurbisher and recycler including those arising from orphaned products.
- (v) The collection points/bins can be designated places where e-waste can be collected through residential areas, office complexes, commercial complexes, retail outlets, customer care stores, educational and research institutions, resident welfare associations (RWAs). These collection points has to be part of producer's collection centres or PRO's collection centres or producers take back system, dismantlers/recyclers/refurbishers collection centres.
- (vi) Mobile collection vans can be used for door to door collection of e-waste or from institutions/ individuals/small enterprises and such vans shall be linked to collection centres and if provided by producers shall be part of their EPR Plan.

#### 4.1 Facilities in Collection Centres

1. The storage capacity of any collection centre should be commensurate with available area, volume of operations (weight/numbers) and category of E-waste. Space needed for storage of different category of e-waste may be as much as given below:

a.	ITEW1 to ITEW6	- 4.0 m <sup>3</sup> /tonne
b.	Monitors(CRT)	- 5.0 m <sup>3</sup> /tonne
c.	ITEW7 to ITEW10	- 5.0 m <sup>3</sup> /tonne
d.	ITEW11 to ITEW14	- 3.0 m <sup>3</sup> /tonne
e.	ITEW15	- 1.0 m <sup>3</sup> /tonne
f.	ITEW16	- 3.0 m <sup>3</sup> /tonne
g.	CEEW1	- 6.5 m <sup>3</sup> /tonne
h.	CEEW2	- 10.0 m <sup>3</sup> /tonne

## DRAFT

i.	CEEW3	- 7.5 m <sup>3</sup> /tonne
j.	CEEW4	- 6.0 m <sup>3</sup> /tonne
k.	CEEW5	- 1.0 m <sup>3</sup> /tonne

Source : UN Report

2. The collection centre where Refrigerator and Air conditioners are also stored should have adequate facilities for controlling arresting leakage of compressor oils, coolant/refrigerant gases such as CFCs/HCFCs etc.
3. Covered shed/spaces have to be used for storage of E-Waste.
4. Collection Centre should necessarily have adequate fire fighting arrangement escape route, for emergency exit should be provided.

## 5.0 Guidelines for Channelisation including transportation of E-Waste

- The Producers may make assessment of potential collection of e-waste, area or region wise
- For channelisation of e-waste to authorised dismantlers/recyclers a producer may take help of any professional agency like Producer Responsibility Organisation (PRO).
- The producers may identify potential authorised dismantlers/recyclers for channelisation of quantum of e-waste assessed above.
- The producers may assess the capacity and capability of each identified authorised dismantlers/recyclers to ensure environmentally sound management of e-waste channelised to them.
- The Producers may identify transporters or may make arrangements for a transportation system for carrying the quantum of e-waste assessed above so that environmental consequences of hazards associated with its transport could be kept at minimum.
- The Producers may transport e-waste as per the manifest system whereby the transporter will be required to carry a document (three copies) prepared by the sender as per the details given below:

### E-WASTE MANIFEST

1.	Sender's name and mailing address (including Phone No.) :	
2.	Sender's authorisation No. if applicable :	
3.	Manifest Document No. :	
4.	Transporter's name and address : (including Phone No.)	
5.	Type of vehicle :	(Truck/Tanker/Special Vehicle)
6.	Transporter/s registration No.:	
7.	Vehicle registration No. :	
8.	Receiver's name & address :	
9.	Receiver's authorisation No. if applicable:	
10.	Description of E-Waste (Item, Weight/ Numbers) :	
11.	Name and stamp of Sender* (Manufacturer/Producer/Bulk Centre/Refurbisher/Dismantler): Year	Consumer/Collection Month Day <div style="display: flex; justify-content: space-between;"> <div>Signature:</div> <div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </div> </div>
12.	Transporter acknowledgement of receipt of E-Wastes	

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	Name and stamp:	Signature:	Month	Day	Year
					<div style="display: flex; justify-content: space-between;"> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> </div>
13.	Receiver* (Collection Centre/ Refurbisher/Dismantler/Recycler) certification of receipt of E-waste				
	Name and stamp:	Signature:	Month	Day	Year
					<div style="display: flex; justify-content: space-between;"> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> <div><div style="width: 20px; height: 20px; border: 1px solid black;"></div></div> </div>

\* As applicable

Note:-

Copy number with colour code	Purpose
Copy 1 (Yellow)	To be retained by the sender after taking signature on it from the transporter and other three copies will be carried by transporter.
Copy 2 (Pink)	To be retained by the receiver after signature of the transporter.
Copy 3 (Orange)	To be retained by the transporter after taking signature of the receiver.
Copy 4 (Green)	To be returned by the receiver with his/her signature to the sender

- The manufacturers and recyclers while transporting waste generated from manufacturing or recycling destined for final disposal to a treatment, storage and disposal facility will follow the provisions under Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.

## **Guidelines for environmentally Sound Dismantling of E-Waste**

### **6.0 Dismantlers**

- (i) Any person or organisation or registered society or a designated agency or a company or an association can engage in dismantling of e-waste into their components by obtaining authorisation from the respective SPCBs/PCCs. Dismantlers may set up their collection centre details of which shall be entered in their authorisation. These collection centres shall not require separate authorisation.
- (ii) A dismantler can be part of producers/PRO take back /channelisation system.

### **6.1 Dismantling Process**

Dismantling operation is essentially manual operation for segregating various components/ parts and sending them to respective users/ recyclers.

Directly usable components can be sent to be used as spare. The other parts can be sent to recyclers/ authorised recyclers depending upon the nature of the part. For example, steel or aluminium part which contains no hazardous constituents can be sent to respective recyclers. Other parts which may contain hazardous constituents have to be sent to authorised recyclers.

Dismantlers may perform the following operations

1. De-dusting
2. Manual dismantling using appropriate tools into different components and parts. The dismantled components of homogeneous materials should be sent to authorised e-waste recyclers.
3. Dismantling shall comprise of physical separation after opening the electrical and electronic equipment into the component by manual operations.
4. Manual dismantling operations can be carried out over the dismantling table with space de-dusting hoods connected with bag dust collectors venting out through chimney of 3 meter above roof level so as to maintain desirable work zone air quality as per the factories Act as amended from time to time. Collection boxes with adequate capacity in sufficient number should be placed near dismantling table for keeping the dismantled

components. The workers involved in dismantling operation should have proper equipment for dismantling the e-waste.

5. During dismantling operations, the workers should have personal protective equipment (PPEs)
6. Dismantlers should have proper dust control equipment.
7. Volume/Size reduction may be carried out after dismantling operations for the parts like steel/aluminum/plastic, for ease of transportation. Dismantled and segregated plastic from e-waste shall only be given to registered plastic recyclers having registration under plastic waste (Management) Rules, 2016.
8. During the volume/size reduction of dismantled steel/aluminium/plastic parts, the dismantlers should have dust and noise controls. These operations should be under enclosure for noise reduction to permissible limits.
9. Dismantlers shall not carry out Shredding / crushing / fine grinding/wet grinding/enrichment operations and gravity/ magnetic/density/eddy current separation of printing circuit board or the components attached with the circuit board.
10. Dismantlers shall not shred segregated LCDs.
11. Dismantlers shall not be permitted for chemical leaching or heating process or melting the material.
12. Dismantling operation shall not include handling/processing of hazardous material or components containing hazardous material.
13. Dismantler shall have adequate facilities for disposal of bag filter residue and floor cleaning dust in secure manner and shall have membership with TSDF for safe disposal.
14. Dismantlers should not break CRT and the CRT dismantled from Television/Monitor should be given to authorised e-waste recyclers.
15. In case of dismantling refrigerators and air conditioners, only skilled manpower having adequate tools and personal protective equipments (PPEs) must be deployed to manually separate compressors. Prior to dismantling the compressors, adequate facilities should be provided for recovery of safe collection of coolant/refrigerant gases and compressor oils.
16. Dismantled circuit boards, CRTs, capacitors, batteries, capacitors containing PCBs (Polychlorinated biphenyls) or PCTs (Polychlorinated terphenyls) etc shall not be stored in open.
17. The premise for dismantling operation should fulfill the following requirements:
  - a) Water proof roofing and impermeable surfaces for appropriate areas with appropriate spillage collection facilities.
  - b) Appropriate storage for disassembled spare parts.



- c) Appropriate containers for storage of batteries, capacitors containing PCBs (Polychlorinated biphenyls) or PCTs (Polychlorinated terphenyls)

## **6.2 Space requirement for Dismantler**

A dismantler needs space for storage of electrical and electronic equipment up to 180 days, for process of dismantling and volume reduction and space for storage of dismantled and segregated material and free space for movement and office/ administration and other utilities. It is estimated that a minimum of 300 square meter area for a dismantling capacity of 1T/day is required for storage of raw material, segregated material, dismantling operations and office/ administration and other utilities

## **Guidelines for environmentally sound recycling of e-waste**

### **7.0 Recyclers**

- (i) As per these rules any person who is engaged in recycling, reprocessing and recovery of waste electrical and electronic equipment or assemblies or their component is a recycler. Recyclers may set up their collection centres, details of which shall be entered in their authorisation. These collection centres shall not require separate authorisation. Recyclers can obtain raw material such as waste electrical and electronic equipment or components or used components from producers/PRO/dismantlers and consumers/bulk consumers.
- (ii) The Product of recyclers has to be sent to direct users, other recyclers/authorised recyclers for further processing. Any hazardous waste generated during the processing will be sent to TSDF'
- (iii) A recycler can be part of producers/PRO take back /channelisation system.

### **7.1 Recycling Process**

The functions of the recyclers include dismantling along with recovery operation. There shall be no restriction on degree of operations that can be permitted for recyclers provided they have requisite facilities. The following processes can be employed by recyclers:

1. Manual / semi-manual / automatic dismantling operations
2. Shredding / crushing / fine grinding/wet grinding/ enrichment operations, gravity/ magnetic/density/eddy current separation
3. Pyro metallurgical operations - Smelting furnace
4. Hydro metallurgical operations
5. Electro-metallurgical operations
6. Chemical leaching
7. CRT cutting
8. Toner cartridge recycling
9. Melting, casting, molding operations (for metals and plastics)

## DRAFT

1. A recycling facility may accept e-waste as in schedule-I and even those electrical and electronic equipment or components not listed in Schedule- I for recycling provided that they do not contain any radioactive material and same shall be indicated while taking the authorisation from concerned SPCBs/PCCs;
2. The recycling facilities shall comply with the requirements as specified for dismantlers in the guidelines for dismantling.
3. A recycling facility shall install adequate wastewater treatment facilities for process wastewater and air pollution control equipment (off gas treatment, wet/alkaline/packed bed scrubber and carbon filters) depending on type of operations undertaken.
4. Suitable space de dusting equipment shall be installed where manual dismantling is carried out.
5. Suitable fume hoods connected with bag dust collectors (mechanical dust collectors followed by fabric filters or two stage fabric filters or fabric filter) followed by wet (chemical) scrubbers followed by carbon filters shall be installed for control of fugitive emissions from furnaces or chemical reactor fumes..
6. Noise control arrangement for equipment like crusher, grinders and shredder needs to be provided.
7. The discharges from the facility shall comply with general standards under E (P) Act, 1986 for discharge of wastewater.
8. In case of air emissions, the unit shall comply with emission values prescribed under Air (Prevention and Control of Pollution) Act, 1981. In case of furnace, a minimum stack height of 30 meter shall be installed depending on emission rate of SO<sub>2</sub>.
9. The workers involved in recycling operations shall wear proper PPEs (Personal Protective Equipment).

10. Adequate facilities for onsite collection and storage of bag filter residues, floor cleaning dust and other hazardous material shall be provided and sent to secure land fill facility by obtaining membership with TSDF operator.
11. The user or recyclers of the products obtained in this recycler facility should be identified and an agreement may be entered with them for selling of the products obtained in these recycling facilities. This is for tracking the product of recycling, to ascertain where the products are going.
12. Recovery of resource and particularly of precious metals present in the e-waste should be given importance.

## 7.2 Recycling of CRT Monitor and TVs

Care should be taken for recycling of CRTs as it contains harmful substances.

CRT monitors and TVs can be manually removed from plastic/ wooden casing. The CRT is split into leaded funnel and unleaded panel glass using different splitting technology in a closed chamber under low vacuum environment and the funnel section is then lifted off from the panel glass section and the internal metal gasket is removed for facilitating the removal of internal phosphor coating. The CRT can be split manually adopting Ni-Chrome hot wire cutting, Diamond wire method or Diamond saw separation

Manual shredding, cutting, and segregation operations for CRTs should be carried out in vacuum chambers where the dust is extracted through cyclones, bag filters, ID fan and a suitable chimney. The operators should use gloves fixed to the walls of the vacuum chamber while handling CRTs as shown in the figure below:



The internal phosphor coating from the inner side of panel glass is removed by using an abrasive wire brush and collected separately. The extracted air is cleaned through high efficiency bag-filter system to collect the phosphor dust. The phosphor dust so collected in the filter bags should be sent to TSDF.

Segregated CRTs can also be shredded in automatic shredding machines connected with dust control systems. The mixed shredded glass is separated into leaded glass and glass cullet using electro-magnetic field or by density separation.

### **7.3 Space requirement for Recyclers**

A recycler of a capacity of 1 Ton per day shall require a minimum of 500 square meters. Authorisation to recyclers may be preferred if they have minimum operational capacity of 5 MT/day with an area of about 2500 square meter.

**FORM-1****Applicable to producers seeking Extended Producer Responsibility - Authorisation**

The application form should contain the following information:

1.	Name and full address along with telephone numbers, e-mail and other contact details of Producer (It should be the place from where sale in entire country is being managed)	:	
2.	Name of the Authorised Person and full address with e-mail, telephone and fax number	:	
3.	Name, address and contact details of Producer Responsibility Organisation, if any with full address, e-mail, telephone and fax number, if engaged for implementing the Extended Producer Responsibility	:	
4.	Details of electrical and electronic equipment placed on market year-wise during previous 10 years in the form of Table 1 as given below:	:	

**Table 1: Details of Electrical and Electronic Equipment placed on the market in previous years - Code wise**

Sr. No.	Electrical and Electronic Equipment Item	Electrical and Electronic Equipment Code	Quantity, number and weight placed on market (year-wise)									
A	Information technology and telecommunication equipment:											
1	Centralised data processing: Mainframes, Minicomputers	ITEW1										
2	Personal Computing:	ITEW2										

# DRAFT

Sr. No.	Electrical and Electronic Equipment Item	Electrical and Electronic Equipment Code	Quantity, number and weight placed on market (year-wise)									
	Personal Computers (Central Processing Unit with input and output devices)											
3	Personal Computing: Laptop Computers(Central Processing Unit with input and output devices)	ITEW3										
4	Personal Computing: Notebook Computers	ITEW4										
5	Personal Computing: Notepad Computers	ITEW5										
6	Printers including cartridges	ITEW6										
7	Copying equipment	ITEW7										
8	Electrical and electronic typewriters	ITEW8										
9	User terminals and systems	ITEW9										
10	Facsimile	ITEW10										
11	Telex	ITEW11										
12	Telephones	ITEW12										
13	Pay telephones	ITEW13										
14	Cordless telephones	ITEW14										
15	Cellular telephones	ITEW15										
16	Answering systems	ITEW16										
<b>B</b>	<b>Consumer electrical and electronics:</b>											
17	Television sets (including sets based on (Liquid Crystal Display and Light Emitting Diode technology)	CEEW1										
18	Refrigerator	CEEW2										
19	Washing Machine	CEEW3										
20	Air-conditioners excluding centralised air conditioning plants	CEEW4										
21	Fluorescent and other Mercury containing	CEEW5										

## DRAFT

Sr. No.	Electrical and Electronic Equipment Item	Electrical and Electronic Equipment Code	Quantity, number and weight placed on market (year-wise)									
	lamps											

5. Estimated generation of Electrical and Electronic Equipment waste item-wise and estimated collection target for the forthcoming year in the form of Table 2 including those being generated from their service centres, as given below:

**Table 2: Estimated generation of Electrical and Electronic Equipment waste item-wise and estimated collection target for the forthcoming year**

Sr. No.	Item	Estimated electrical and electronic waste generation Number and weight	Targeted collection Number and weight

6. Extended Producer Responsibility Plans:

(a) Please provide details of your overall scheme to fulfil Extended Producer Responsibility obligations including targets. This should comprise of general scheme of collection of used/waste Electrical and Electronic Equipment from the Electrical and Electronic Equipment placed on the market earlier such as through dealers and collection centres, Producer Responsibility Organisation, through buy-back arrangement, exchange scheme, Deposit Refund Scheme, etc. whether directly or through any authorised agency and channelizing the items so collected to authorised recyclers.

(b) Provide the list with addresses along with agreement copies with dealers, collection centres, recyclers, Treatment, Storage and Disposal Facility, etc. under your scheme.

7. Estimated budget for Extended Producer Responsibility and allied initiatives to create consumer awareness.

8. Details of proposed awareness programmes.

9. Details for Reduction of Hazardous Substances compliance (to be filled if applicable):

- (a) Whether the Electrical and Electronic Equipment placed on market complies with the rule 15 (1) limits with respect to lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers;



## DRAFT

- (b) Provide the technical documents (Supplier declarations, Materials declarations/Analytical reports) as evidence that the Reduction of Hazardous Substances (RoHS) provisions are complied by the product based on standard EN 50581 of EU;
  
- (c) Documents required:
  - i. Extended Producer Responsibility plan;
  - ii. Copy of the permission from the relevant Ministry/Department for selling their product;
  - iii. Copies of agreement with dealers, collection centre, recyclers, Treatment, Storage and Disposal Facility, etc.;
  - iv. Copy of Directorate General of Foreign Trade license/permission as applicable;
  - v. Self-declaration regarding Reduction of Hazardous Substances provision;
  - vi. Copy of analysis report in respect of products/component wise for Reduction of Hazardous Substances provision;
  - vii. Any other document as required.

**(Authorised signature)**

**Applicability**

These rules apply to every manufacturer, producer, consumer, bulk consumer, collection centre, dealer, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational and shall not apply to -

- (a) used lead acid batteries as covered under the Batteries (Management and Handling) Rules, 2001 made under the Act;
- (b) micro enterprises as defined in the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006); and
- (c) radio-active wastes as covered under the provisions of the Atomic Energy Act, 1962 (33 of 1962) and rules made there under.

Presently Micro enterprises is defined as enterprises engaged in the manufacture or production of goods pertaining to any industry, if the investment in plant and machinery does not exceed twenty – five lakh rupees or an enterprise providing or rendering services, if the investment in equipment does not exceed ten lakh rupees is micro enterprise as defined under the Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006)

ANNEXURE - III

Definitions

- (a) '**authorisation**' means permission for generation, handling, collection, reception, storage, transportation, refurbishing, dismantling, recycling, treatment and disposal of e-waste, granted to manufacturer, dismantler, refurbisher and recycler;
- (b) '**bulk consumer**' means bulk users of electrical and electronic equipment such as Central Government or State Government Departments, public sector undertakings, banks, educational institutions, multinational organisations, international agencies and public, private, partnership companies that are registered under the Factories Act, 1948 (63 of 1948) and Companies Act, 2013 (18 of 2013) and health care facilities which have turnover of more than one crore or have more than twenty employees;
- (c) '**collection centre**' means a centre and/or collection point established by Producer individually or as association collectively to collect e-waste for channelizing the e-waste to recycler and play such role as indicated in the authorisation for Extended Producer Responsibility granted to the Producer and having facilities as per the guidelines of Central Pollution Control Board. These collection centres can also collect e-waste on behalf of dismantler, refurbisher and recycler including those arising from orphaned products. The collection centre can also be established by the dismantler/refurbisher/recycler which should be a part of their authorisation issued by the State Pollution Control Board where the facility exists;
- (d) '**component**' means one of the parts of a sub-assembly or assembly of which a manufactured product is made up and into which it may be resolved. A component includes an accessory or attachment to another component;
- (e) '**consumables**' means any item, which participates in or is required for a manufacturing process or for functioning of the electrical and electronic equipment and may or may not form part of end-product. Items, which are substantially or totally consumed during a manufacturing process, will be deemed to be consumables;
- (f) '**consumer**' means any person using electrical and electronic equipment excluding the bulk consumers;
- (g) '**channelisation**' means to direct the path for movement of e-wastes from collection onwards to authorised dismantler/recycler. For Fluorescent and other Mercury containing lamps, if recyclers are not available, this means path for movement from collection centre to Treatment, Storage and Disposal Facility;
- (h) '**dealer**' means any individual or firm that buys or receives electrical and electronic equipment as listed in Schedule I of these rules and their components/consumables/parts/spares from producers for sale;
- (i) '**deposit Refund Scheme**' (**DRS**) means a scheme whereby the producer charges an additional amount as a deposit at the time of sale of the electrical and electronic equipment

- (j) and returns it to the consumer along with interest when the end-of-life electrical and electronic equipment is returned;
- (k) '**dismantler**' means any person or organisation engaged in dismantling of used electrical and electronic equipment into their components and having facilities as per the guidelines of
- (l) Central Pollution Control Board and having authorisation from concerned State Pollution Control Board;
- (m) '**disposal**' means any operation which does not lead to recycling, recovery or reuse and includes physico-chemical or biological treatment, incineration and deposition in secured landfill
- (n) '**electrical and electronic equipment**' means equipment which are dependent on electric current or electro-magnetic field to be functional;
- (o) '**end-of-life**' of the product is the time when the product is intended to be discarded by the user;
- (p) '**environmentally sound management of e-waste**' means taking all steps required to ensure that e-waste is managed in a manner which shall protect health and environment against any adverse effects, which may result from such e-waste;
- (q) '**e-retailer**' means an individual/company/business entity that uses an electronic network such as internet, telephone, etc. to sell its goods;
- (r) '**e-waste**' means electrical and electronic equipment, whole or in part discarded as waste by the consumer/bulk consumer as well as rejects from manufacturing, refurbishment and repair processes;
- (s) '**e-waste exchange**' is an independent market instrument offering assistance or independent electronic systems offering services for sale and purchase of e-waste generated from end-of-life electrical and electronic equipment between agencies/organisations authorised under these rules;
- (t) '**Extended Producer Responsibility**' (**EPR**) means responsibility of any producer of electrical or electronic equipment, for channelisation of e-waste to ensure environmentally sound management of such waste. Extended Producer Responsibility may comprise of implementing take back system and/or setting up of collection centres and having agreed arrangements with authorised dismantler/recycler either individually or collectively through a Producer Responsibility Organisation recognised by producer or producers in their Extended Producer Responsibility - Authorisation;
- (u) '**Extended Producer Responsibility - Authorisation**' means a permission given by Central Pollution Control Board to a producer, for managing Extended Producer Responsibility with implementation plans and targets outlined in such authorisation including detail of Producer Responsibility Organisation and e-waste exchange, if applicable;

- (v) **'Extended Producer Responsibility Plan'** means a plan submitted by a producer to Central Pollution Control Board, at the time of applying for Extended Producer Responsibility - Authorisation in which a producer will provide details of e-waste channelisation system for targeted collection including detail of Producer Responsibility Organisation and e-waste exchange, if applicable;
- (w) **'historical e-waste'** means e-waste generated from electrical and electronic equipment as specified in Schedule I, which was available prior to May 2012;
- (x) **'manufacturer'** means a person or an entity or a company as in the Companies Act, 2013 (18 of 2013) or a factory as in the Factories Act, 1948 (63 of 1948) and Micro and Small Enterprises as defined in Micro, Small and Medium Enterprises Development Act, 2006 (27 of 2006), which has facilities for manufacture of Electrical and Electronic Equipment;
- (y) **'orphaned products'** means non-branded or assembled electrical and electronic equipment as specified in Schedule I or those produced by a company, which has closed its operations;
- (z) **'part'** means an element of a sub-assembly or assembly not normally useful by itself, and not amenable to further disassembly for maintenance purposes. A part may be a component, spare or an accessory;
- (aa) **'producer'** means any person who, irrespective of the selling technique used such as dealer, retailer, e-retailer, etc.;
- (i) manufactures and offers to sell electrical and electronic equipment and their components/consumables/parts/spares under its own brand; or
  - (ii) offers to sell under its own brand, assembled electrical and electronic equipment and their components/consumables/parts/spares produced by other manufacturers or suppliers; or
  - (iii) offers to sell imported electrical and electronic equipment and their components/consumables/parts/spares;
- (bb) **'Producer Responsibility Organisation' (PRO)** means a professional organisation authorised or financed collectively or individually by producers, which can take the responsibility for collection and channelisation of e-waste generated from the 'end-of-life' of their products to ensure environmentally sound management of such e-waste;
- (cc) **'recycler'** - means any person who is engaged in recycling and reprocessing of waste electrical and electronic equipment or assemblies or their components and having facilities as elaborated in the guidelines of Central Pollution Control Board;
- (dd) **'refurbishment'** means repairing of used electrical and electronic equipment as listed in Schedule I for extending its working life for its originally intended use and selling the same in the market or returning to owner;
- (ee) **'refurbisher'** for the purpose of these rules, means any company/undertaking registered under the Factories Act, 1948 and/or the Companies Act, 1956 and/or district industries centre engaged in refurbishment of used electrical and electronic equipment;

- (ff) "**spares**" means a part or a sub-assembly or assembly for substitution that is ready to replace an identical or similar part or sub-assembly or assembly. Spares include a component or an accessory;
- (gg) '**target**' is the quantity of e-waste to be collected by the producer in fulfilment of Extended Producer Responsibility;
- (hh) '**transporter**' means a person/company/entity engaged in the off-site transportation of e-waste by air, rail, road or water carrying a manifest system issued by the person/company/entity who has handed over the e-waste to the transporter, giving the origin, destination and quantity of the e-waste being transported.

**Annexure – IV**

**Responsibilities of the Producer**

The producer of electrical and electronic equipment as listed in Schedule I of the e-waste (Management) Rules, 2016 are responsible for the followings:

(1) implementing the Extended Producers Responsibility with the following framework:

- (a) collection and channelisation of e-waste, generated from the 'end-of-life' of their products or 'end-of-life' products with same electrical and electronic equipment code in line with the targets prescribed in Extended Producer Responsibility - Authorisation;
- (b) providing contact details such as address, e-mail address, toll-free telephone numbers or helpline numbers to consumer(s)/bulk consumer(s) through their website and product user documentation so as to facilitate return of end-of-life electrical and electronic equipment;
- (c) creating awareness through media, publications, advertisements, posters, or by any other means of communication and product user documentation accompanying the equipment, with regard to –
  - (i) information on address, e-mail address, toll-free telephone numbers or helpline numbers and web site;
  - (ii) information on hazardous constituents as specified in sub-rule 1 of rule 15 in electrical and electronic equipment;
  - (iii) information on hazards of improper handling, disposal, accidental breakage, damage and/or improper recycling of e-waste;
  - (iv) instructions for handling and disposal of the equipment after its use, along with the Do's and Don'ts;
  - (v) affixing a visible, legible and indelible symbol given below on the products or product user documentation to prevent e-waste from being dropped in garbage bins containing waste destined for disposal;



- (vi) means and mechanism available for their consumers to return e-waste for recycling including the details of Deposit Refund Scheme, if applicable;
- (2) maintaining records in Form-2 of the e-waste handled and make such records available for scrutiny by the Central Pollution Control Board or the concerned State Pollution Control Board;
- (3) filing annual returns in Form-3, to the Central Pollution Control Board on or before the 30<sup>th</sup> June following the financial year to which that return relates. In case of the Producer with multiple offices in a State, one annual return combining information from all the offices shall be filed;

**Responsibilities of collection centres**

- (1) collect e-waste on behalf of producer/producers or dismantler/recycler or refurbisher;
- (2) ensure that the facilities are in accordance with the standards or guidelines issued by Central Pollution Control Board from time to time;
- (3) ensure that the e-waste collected by them is stored in a secured manner till it is sent to authorised dismantler/recycler as the case may be;
- (4) ensure that no damage is caused to the environment during storage and transportation of e-waste;
- (5) maintain records in Form-2 of the e-waste handled as per the guidelines of Central Pollution Control Board and make such records available for scrutiny by the Central Pollution Control Board or the concerned State Pollution Control Board as and when asked for.



**Annexure- VI**

**Responsibilities of the Dismantler**

- (i) To ensure that the facility for dismantling processes are in accordance with the standards or guidelines prescribed by Central Pollution Control Board from time to time;
- (ii) To obtain authorisation from the concerned SPCBs/PCCs. Any dismantling operation without obtaining authorisation from SPCBs/PCCs shall be considered as causing damage to the environment and attract penal provisions as per E(P) Act 1986;
- (iii) To have an agreement with producers for channelisation of e-waste.
- (iv) To have an agreement with recyclers
- (v) To ensure that no damage is caused to the environment during storage and transportation of e-waste;
- (vi) To ensure that the dismantling processes do not have any adverse effect on the health and the environment;
- (vii) To ensure that dismantled e-waste are segregated and sent to the authorised recycling facilities for recovery of materials;
- (viii) To ensure that non-recyclable or non-recoverable components are sent to authorised treatment storage and disposal facilities;
- (ix) To maintain record of e-waste collected, dismantled and sent to authorised recycler in Form-2 and make such record available for scrutiny by the Central Pollution Control Board or the concerned State Pollution Control Board;
- (x) To file a return in Form-3, to the concerned State Pollution Control Board as the case may be, on or before 30th June following the financial year to which that return relates;
- (xi) Do not process any e-waste for recovery or refining of materials, unless he is authorised with concerned State Pollution Control Board as a recycler for refining and recovery of materials;

**Regulatory Requirement for Dismantlers**

The dismantler has to comply with following legal requirement:

1. To obtain consent to establish granted by the concerned State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974, (25 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981(21 of 1981);
2. To obtain certificate of registration issued by the District Industries Centre or any other government agency authorised in this regard;
3. To obtain proof of installed capacity of plant and machinery issued by the District Industries Centre or any other government agency authorised in this behalf; in case of renewal, a certificate of compliance of effluent and emission standards, treatment and disposal of

hazardous wastes as applicable from the concerned State Pollution Control Board or any other agency designated for this purpose

4. To obtain authorisation from the Concerned SPCBs/PCCs
5. To ensure that no damage is caused to the environment during storage and transportation of e-waste
6. To ensure that the facilities and dismantling processes are in accordance with the standards or guidelines published by the Central Pollution Control Board from time to time
7. Dismantler to ensure that dismantled e-waste are segregated and sent to the registered recycling facilities for recovery of materials
8. To ensure that non-recyclable/non-recoverable components are sent to Treatment Storage and Disposal Facilities (TSDF) meeting CPCB norms
9. maintain record of e-waste collected, dismantled and sent to authorised recycler in Form-2 and make such record available for scrutiny by the Central Pollution Control Board or the concerned State Pollution Control Board;
10. To file return in form 3 to the SPCB/PCC on or before 30<sup>th</sup> June following the financial year to which that return relates.
11. Should not process any e-waste for recovery or refining of materials, unless he is registered with SPCB/PCC as a recycler for refining and recovery of materials.

**Responsibilities of the Recycler**

- (1) To ensure that the facility and recycling processes are in accordance with the standards or guidelines prescribed by the Central Pollution Control Board from time to time;
- (2) To obtain authorisation from the concerned SPCBs/PCCs. Any dismantling operation without obtaining authorisation from SPCBs/PCCs shall be considered as causing damage to the environment and attract penal provisions as per E(P) Act 1986
- (3) To ensure that no damage is caused to the environment during storage and transportation of e-waste;
- (4) To ensure that the recycling processes do not have any adverse effect on the health and the environment;
- (5) To ensure that the fractions/material not recycled in its facility is sent to the respective authorised recyclers
- (6) To ensure that residue generated during recycling process is disposed of in an authorised common hazardous waste treatment storage disposal
- (7) To maintain record of e-waste collected, dismantled and sent to TSDF in Form-2 and make such record available for scrutiny by the Central Pollution Control Board or the concerned State Pollution Control Board;
- (8) To file a return in Form-3, to the concerned State Pollution Control Board as the case may be, on or before 30th June following the financial year to which that return relates.

**Regulatory Requirement for Recyclers:**

The recycler has to comply with following legal requirement:

1. To obtain consent to establish granted by the concerned State Pollution Control Board under the Water (Prevention and Control of Pollution) Act, 1974, (25 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981(21 of 1981);
2. To obtain certificate of registration issued by the District Industries Centre or any other government agency authorised in this regard;
3. To obtain proof of installed capacity of plant and machinery issued by the District Industries Centre or any other government agency authorised in this behalf; in case of renewal, a certificate of compliance of effluent and emission standards, treatment and disposal of hazardous wastes as applicable from the concerned State Pollution Control Board or any other agency designated for this purpose

4. To obtain authorisation from the SPCBs/PCCs.
5. To ensure that no damage is caused to the environment during storage and transportation of e-waste.
6. To ensure that the recycling process are in accordance with the standards or guidelines published by the Central Pollution Control Board from time to time.
7. Recyclers to ensure that dismantled materials are sent to the registered or bona fied industries for use of recycled material as their raw materials.
8. To ensure that non-recyclable/non-recoverable components are sent to authorised Treatment Storage and Disposal Facilities (TSDF)
9. To file return in form 3 to the SPCB/PCC on or before 30th June following the financial year to which that returns relates.
10. Should not process any E-waste for recovery or refining of materials, unless he is authorised by SPCBs/PCCs to do so.